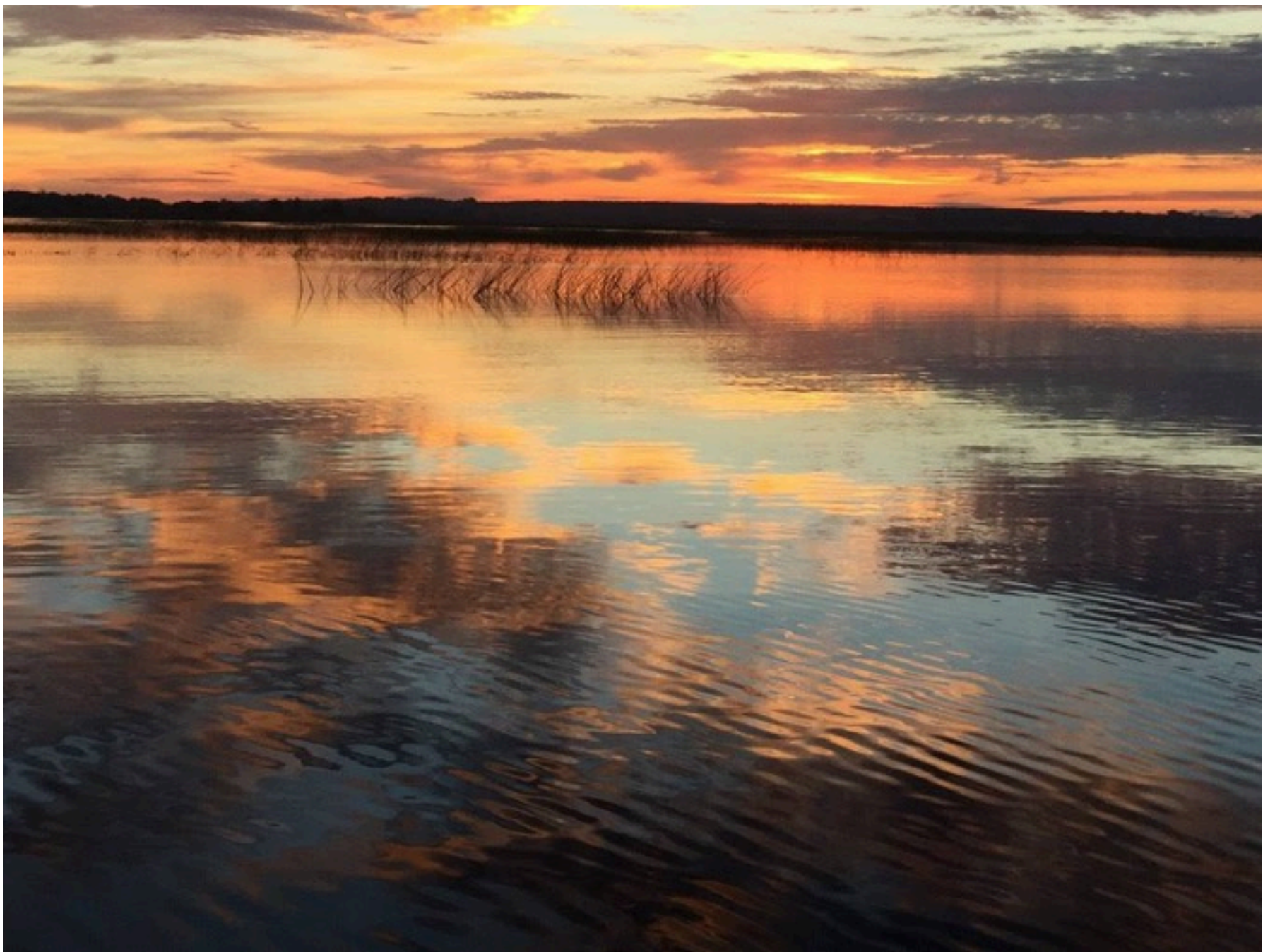


EDWARD W. BOK ACADEMY

CREATING RENAISSANCE
THINKERS FOR THE DIGITAL AGE



A photograph of two students in a yellow pontoon boat on a body of water. The student in the foreground is wearing a blue life vest over a green shirt and is paddling with a blue oar. The background shows a calm lake with green reeds and a clear sky.

EDWARD W. BOK ACADEMY

At a rural charter middle school where more than half the students live below the poverty line, the use of technology helps create digital thinkers who use technology to solve problems.

- Edward W. Bok Academy is 1:1 using iPad, MacBooks, and iMacs to educate.
- Curriculum design emphasizes significant use of digital content and Apple tools.
- Ninety-seven percent of educators are recognized as Apple educators.
- Leadership provides an ecosystem for continuous professional development.
- Learning is enhanced by a 40-foot pontoon boat used on Crooked Lake.



VISION

Our mission is to create a digital culture while immersing our Renaissance Thinkers with the tools and technology of today; bringing forth Renaissance Thinkers with an ethos of service global citizens prepared to face future challenges with a willingness to serve all.

This vision is shared across stakeholders from students and parents, to the governing board, and the larger community. On a daily basis, students are immersed in an ecosystem of technology-enhanced instruction from using iMovie to shared learning, students seek knowledge and find a deeper understanding of content while utilizing the technology enriched learning studios. Technology creates flexible learning environments, which extend learning passed the traditional walls and time constraints of a school day. Learning studios provide students with the ability to wonder and pursue knowledge while guided by state standards. Educators blend content and 21st-Century skills with technology to equip students allowing them to reach heights sought by colleges and the workplace.

STAKEHOLDERS

The administration believe in the mission of Educating Renaissance Thinkers for the Digital Age. All members of the educational community carry this vision out daily. The principal encourages individual investigation and implementation of innovative technologies.

School leadership provides hands-on training and strives to give each educator full confidence in their ability to implement



quality instruction in the classroom. The administration provides educators opportunities to attend professional conferences, participate in professional development, and encourages educators to seek and contribute to professional learning communities. Educators are sought by outside entities to provide professional learning, consultation, and trainings.

Along with providing opportunities to improve as educators, the administration highly encourages educators to present best practices at local, regional, and national conferences. As a result, these opportunities empower educators in transforming the teaching-learning process which promotes higher levels of engagement for students.

The leadership team members, consisting of department deans and administration, foster the advancement of technological integration and create an ecosystem in which the educators are empowered to thrive and excel. The administration's vision provides freedom to develop the best lessons and innovations with technological tools that enhance the academic lives of the students we serve. By seeking opportunities for professional development, the leadership enhances the success of the educators, students, and families.

Departmental deans collaborate regularly to discuss and evaluate school structure and curriculum. Departments work tirelessly to ensure educators are equipped with the knowledge and tools necessary for creating technology-infused curriculum. Learners on campus are exposed to and embrace the technological advances which are available to them. The governing board, Lake Wales Charter Schools, Inc., (LWCS) supports the school's mission. Servicing the local community, the LWCS board provides the school with the flexibility to

GALLERY 1.1 A Glimpse



Students and staff seek to make a global impact. Collecting shoes and funds through the TOMS program, students helped support a charity in Haiti.



achieve the mission, offers support financially, and serves as the Local Education Agency for the school.

Local community entities, charitable foundations, and individuals offer support through various programs and financial contributions to promote sustainable growth.

The aspiration of Edward W. Bok Academy is not only to impact the educational lives of our students, but also to have a profound affect

on the surrounding communities. The mission of the school is to produce students with a foundation, which enables them to fulfill the Bok family legacy, “Make the world a bit better and more beautiful because you have lived in it.” We strive to continue the contribution to society led by our namesake, Edward W. Bok, and to impact the world, one student at a time.

GOALS

Students are provided with technology as the vehicle to learning. The learning studios incorporate lessons which require students to choose the best technology tool or resource to gather, support, and share their knowledge. Students regularly email their educators for support, utilize online collaboration methods with peers, and use a variety of creation applications to showcase their learning. Students are taught inquiry methods which lend the students to think abstractly and to approach learning using methods of thinking learned through multiple intelligences and personal learning assessments.

Bok Academy believes in developing a supportive culture using the “Bok Essentials” in order to educate students on how to reach their fullest potential.

Through morning academic coaching classes, students learn

the importance of being thoughtful and active digital learners.

Throughout the courses, educators provide students with lessons on digital citizenship, social media usage, and help students understand their digital presence. Students are educated on local and global problems, and are encouraged to seek solutions to have a positive impact now and in the future.



SUSTAINABILITY

Since the school's inception in 2008, Bok Academy has achieved an A-school rating from the Florida Department of Education.

With the support of state legislation, Bok Academy has been named a "High-performing Charter School." Bok Academy, with the support of the governing board, has submitted an application for duplication to the Florida Department of Education. A proposed Bok North campus is currently being pursued and a future start date to be announced. The Bok North campus would replicate the culture and community-minded mission along with the technology-infused coursework used at Edward W. Bok Academy.

With two potential campus locations, technology will help connect both educators and students, ensuring the vision of the school is met.

Driven by the increase in popularity of the school's STEM programs, a financial supporter initiated new construction to meet student interest. At this time, the 8-classroom building is being constructed. Upon its completion, the facility will enrich the students' learning experience and increase enrollment in STEM programs. The building's design will be focused around open, technology-driven, laboratory environments. Educator and student input are being sought as the interior design decisions are made.

The School's Advisory Council (SAC), whose members are parents and local business leaders, take an active role in the school.

The SAC members locate resources within the community, provide guidance for the school's financial endeavors, and support the school's vision.



Bok Academy promotes the formulation of a collective vision of a community by facilitating a dialogue among community organizations about ideals which will not only better serve the needs of the students, but also educate them on how we contribute to our community. Over 30 named business and community partners, including local corporations and college/universities provide mentors support the learning with their expertise or facilitate programs which enhance the curriculum.

To ensure long-term success of technology integration and implementation, Bok Academy's technology team share resources, mentor educators, lead trainings, and model best practices. Educators are provided a supportive learning environment enabling them to apply new technology methods

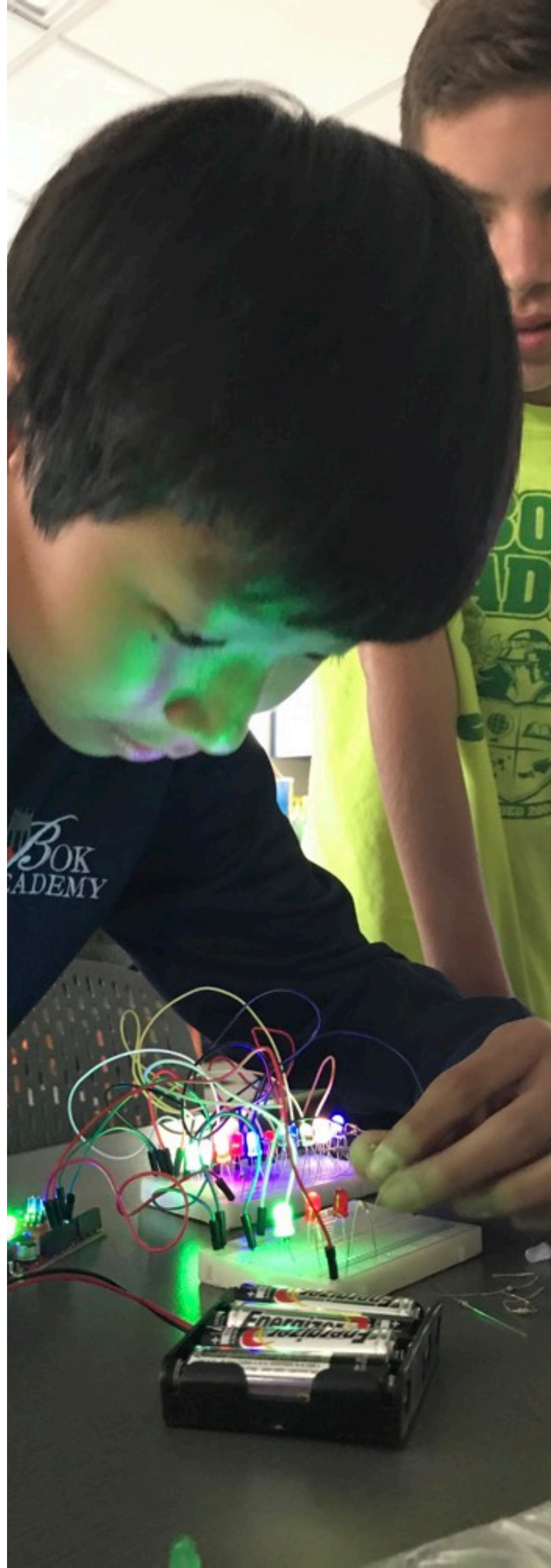
and encouraged to reflect on the outcomes with a mentor.

Creating a globally-minded community of learners, students contribute to both the culture and climate of the school. Students are often the driving force behind curriculum shifts, including the use of technology. Student interests spur educators to seek grant and funding opportunities which enhance the student's experience. School leadership gathers student feedback, ensuring the use of technology is both beneficial and effective to support learning.

LEARNING

Bok Academy provides students with a plethora of learning opportunities steeped in traditional and nontraditional learning which use the tools and technology of today. Students enter the school with a wide variety of educational background, including digital skill sets. Whether they are digital natives or immigrants, the school utilizes various platforms to involve all learners. Students acquire knowledge from inquiry-based projects and are able to distribute their findings using a variety of programs on iPad, iMacs, and MacBooks. Students build their digital resource collection through assignments and projects frequently using educational apps, various cloud technologies, and learning management systems. Students emerge as digital thinkers who utilize technology to collaborate, create, and solve authentic issues and challenges.

Unique to Bok Academy, students use an iPad while aboard the Floating Classroom, a 40' pontoon boat. Students use iPads and other scientific technologies to investigate and conduct water quality testing of Crooked Lake. Students utilize iPad to compile and analyze data, enabling them to share findings with environmental watch agencies. As students conduct wildlife observations,



educational apps are used to identify local flora and fauna.

Students use iPad to capture videos and take images, incorporating the material into iMovies and Keynotes. The findings and research conducted by students support the vision of the Defenders of Crooked Lake, a group of property owners who seek to preserve the lake's natural beauty and purity of water.

With the support of EcoTek, a science research organization, students use their coding knowledge to create an app which focuses on citrus greening. The research was supported using MacBooks, iPad, and utilizing the Apple ecosystem of programs.

The success of the challenge-based learning approach provided students with a desire to deeply extend their learning. The administration and educators recognize the need for more opportunities to engage students through project or challenge based learning.

Based on their interest, students are able to participate in the NASA/MIT Zero Robotics competition, held annually. Using MacBooks, students apply their coding skills to solve a robotic challenge aboard the International Space Station. Students collaborate during the program and after, even meeting off campus to conduct trials. In 2016, the Bok Academy Robotics Team placed first in this national competition.

After exploring content, students often use iMovie trailers and iPad whiteboard apps to showcase their learning. In mathematics, students share their mathematical thinking, during class, using whiteboard apps, and Apple TV's.

Students use iMovie to dramatically conduct their own presidential elections and share viewpoints with others. Pages, Keynote, and iMovie projects help students demonstrate their learning about ancient civilizations and governments.

In science, students use educational apps to explore

RAISE THE BAR

various parts of cells. While studying the human body and disease transmission, students use educational apps like Plague Inc. and Bio Inc to simulate various effects of diseases on the human body and society. Educational apps allow students to explore the significance of the various elements and visualize their atomic structure. Students use technology tools to research past and present tectonic activity worldwide, and utilize specific content related educational apps to simulate volcanic and earthquake activity. Various educational apps are used to simulate critical thinking during laboratory investigations as well.

The STEM courses at Bok Academy use Swift Playgrounds to expand their coding knowledge and education. Currently, Swift Playgrounds is used by students to program robots, drones, and student exploration is being done

to add musical instruments.

Students take advantage of vast learning opportunities using iPad to record stop motion movies and create projects using green screen photography. Within the robotic course, students use iPad and MacBooks to program robots enabling them to perform various tasks.

Students regularly lead private school tours using the iPad as a reference of knowledge. While touring the school, students share their personal experience as they guide potential families, community leaders, donors, and business leaders.

As the students continue to raise the bar, educators are seeking opportunities to incorporate real world problem solving curriculum.

Educators indicated in a school survey a desire to create curriculum through a problem based learning lens.

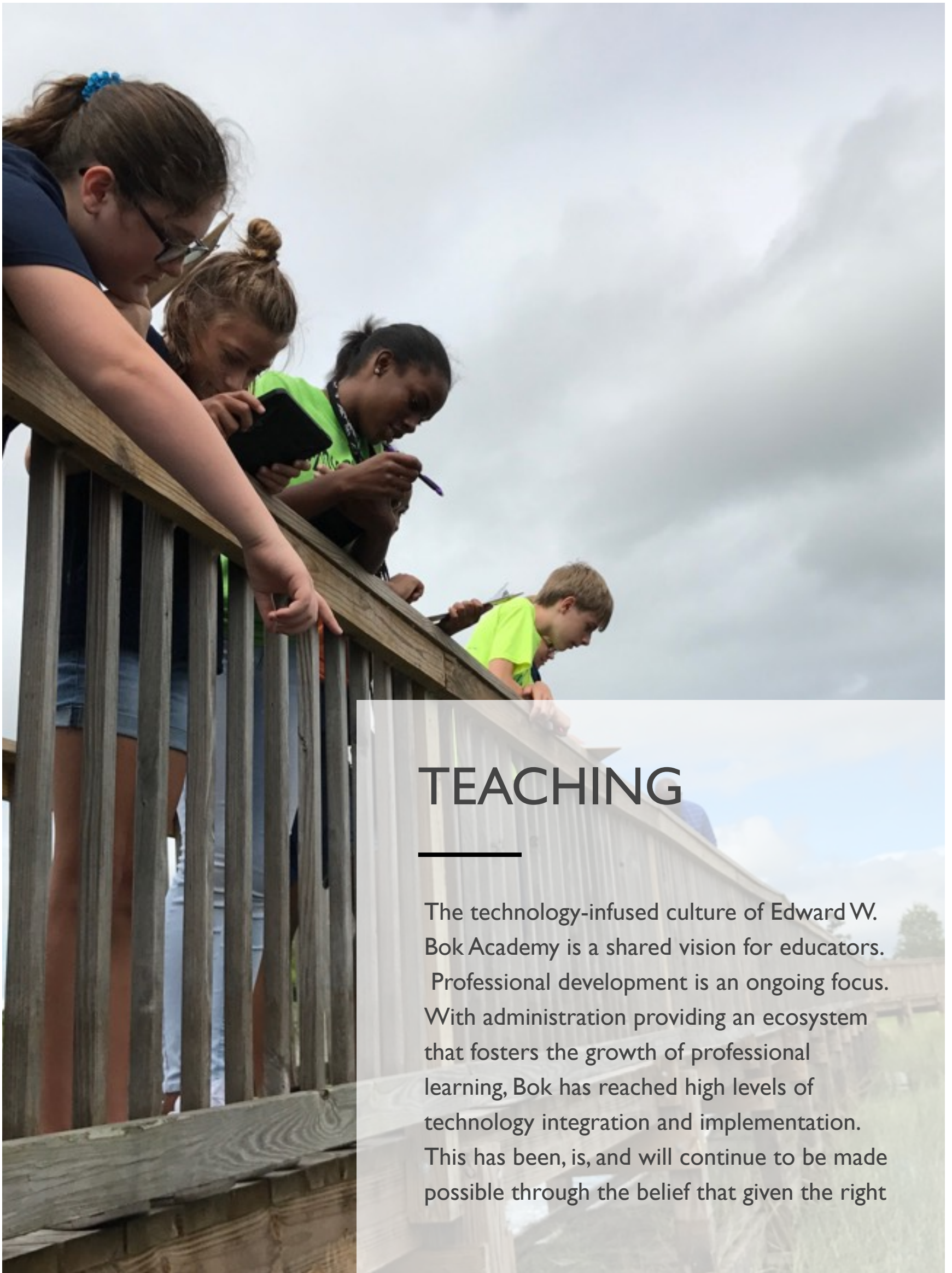
EXPLORE | CREATE



GALLERY 1.2 Learning

During the recent solar eclipse, Bok Academy students spent time observing, recording, and participating in different activities.





TEACHING

The technology-infused culture of Edward W. Bok Academy is a shared vision for educators. Professional development is an ongoing focus. With administration providing an ecosystem that fosters the growth of professional learning, Bok has reached high levels of technology integration and implementation. This has been, is, and will continue to be made possible through the belief that given the right

SHARE

tools and encouragement, educators will think differently and be able to push students to replace the limitations they once had on their learning with endless possibilities. Providing ongoing professional development ensures educators are in alignment with current trends in educational technology. From earning master's degrees, to becoming doctors in an educational expertise, educators share knowledge with their colleagues on a continual basis. As new educators join, they are mentored by veteran educators on staff. Whole group professional development is used as well as small group and individual professional learning experiences. Educators also participate in a community of practice, reflecting on their experiences and sharing best practices.

Bok Academy uses surveys to seek new learning methods and to reflect on current educational methods. Educators are surveyed on their use of technology in the classroom and areas of needs are explored based on the survey results. Creating a mindset based on continued improvement, the school's reflection showed a desire to use project-based learning in the core subjects. Keystone courses, elective classes chosen by students, offer real-world and problem solving lessons. However, the academic courses seek to improve the connections between the lessons structured around the state standards, to increase student engagement in addressing challenges. In hopes to support this instructional strategy, the school has provided two 9-week sessions focused on grade level challenge based learning units. The sessions had pockets of success, leading to aspirations of improving the quality and quantity of this learning approach. Several key components being addressed are time constraints, year-long planning opportunities, and state standard alignment.

TECHNOLOGY INVESTMENT

It is not uncommon to find educators investing their own time and resources to provide meaningful, thought-provoking lessons for students. Whether they attend a Twitter chat or seek online courses, educators continually expand their teaching horizons. With the administrative support, educators pilot new innovative learning techniques.

Additionally, designated educators work to assess the wants and needs of technology integration for students and educators. These educators utilize scheduled times each day to plan and execute professional development trainings.

Technology trainings are provided by faculty members, outside experts, and a 2015 Apple Foundation Trainer. The addition of an Apple Foundation Trainer, at the district level, has increased knowledge of Apple platforms and applications. Increasing the district's use of Apple applications

and products is supported by the school's administration as well as the district superintendent.

During the 2016-17 school year, 100% of the educators achieved the Apple Teacher status.

Currently, one new educator is being supported in learning to use the instructional technology.

Educators look to expand and share their knowledge by collaboratively working with others in the education field.

Educators have had the opportunities to present at the Florida Charter School Conference, The Florida Council educators of Mathematics, Lighthouse Schools iSummit, The Central Florida educators Retreat, L.O.V.E. Honduras Teaching Conference, Florida Educator Technology Conference, along with other professional development trainings specific to a school's need.



Within each educator is an inherent yearning to unlock the dreams and set in motion each child's true potential. More than half of our students are at, or below, the poverty line. Our educators are driven by the knowledge that technology can provide opportunities otherwise unobtainable for our students if educators do not "push the envelope."

Bok's Investments in Professional Development

- Apple Education Trainings
- Apple Distinguished Educator Visits
- Apple Distinguished School Visits
- Executive Briefing at Apple Headquarters
- District Professional Technology Trainings
- School Based Trainings
- What's Next: Implementing Research Practices, Apple 2015/2016
- Individual Learnings Modules
- Learning Immersion Programs, Funded By Grants

Ongoing Professional Development

- Hardware - MacBook, iPad, MacBook Pro, Apple TV
- Use of Creation apps
- OS X and iOS Platforms
- Learning Management Systems
- Exceptional Student Education
- Brain-based Learning
- Problem and Challenge Based Learning
- Teacher Evaluations
- Standard Implementation
- Curriculum software and programs

DESIGN

Educators seek to support the holistic development of the student. The middle school student is a complex learner who has needs in social and emotional development. Educators invest in the students' cognitive, social, and emotional growth. The educators provide comprehensive academic support mechanisms such as academic coaching, data driven instruction, social and emotional learning, brain-based instruction, and teaching theories supported by the school's charter.

The instructional practices provide effective and efficient classroom technology interaction that assist students on a journey of discovery. Within the learning studios, opportunities for the learning process to be based on student interests, identified by interest inventories enables lessons which are geared towards all learning styles within the classroom setting.

Blended learning instructional approaches such as a flipped classroom and an in-class flip are strategically taking advantage of the mobile device infused learning environment. The variety of teaching pedagogy enables students to experience an array of learning opportunities which provide meaningful tasks, reflective practices, and collaboration within social learning constructs. Educators are self-seeking digital learners who provide support for both peers and students. Creativity flourishes with the ethos of knowledge found in the learning studios.



Working with state and national standards, educators weave technology's future and the patterns of the past into a program of study designed for the adolescent learner. Departments collaboratively design and develop curricula, including assessments, to utilize digital content, tools, and apps to cultivate innovative and engaging authentic learning environments for students. The rigorous framework is based on Renaissance thinking with the digital tools of today. The school's charter is designed based on the following elements:

- High scholastic achievement
- Global and local community perspective
- Technology and computational thinking
- Meta-cognition and philosophy
- Architecture and design
- Wellness

These elements offer a unique educational opportunity also exemplifying and honoring the life of philanthropist, Edward W. Bok. To better the profession, educators share best practices and innovations as they host technology summits and community outreach locally and many present annually at various educational conferences. The school and curriculum nourishes the human spirit and inspires young minds to design a life full of merit.

Educators use MacBook and iPad apps extensively to support, extend, and redefine student learning. Educators research, plan, and design lessons using iPad and MacBooks. Keynote provides an easy and engaging method for presenting content to students. Educators use iMovie to create teaser videos and lesson videos to introduce topics, or provide learning accessible after school hours. While teaching, educators use iPad/MacBooks to share content using Apple TVs. Sharing presentations, utilizing on-demand learning, and creating dynamic curriculum are often the primary focus for educators.

Educators also provide students with Multi-Touch books, giving students exposure to the various topics. Educators share tricks and tips during staff meetings, department meetings, and even over lunch to better their craft.





ENVIRONMENT

Since its inception, the school has followed a seven period day. Students rotate through 45 minute periods. The schedule includes five academic classes and two keystones. Keystones, or elective courses, offer a wide variety of classes: outdoor leadership, chorus, culinary, yearbook, physical fitness, strings, steel drums, keyboarding, band, dance, STEM, marine science, agriculture, robotics, science olympiads, Spanish, and IT courses.

The schedule includes a 45 minute lunch period. The extended lunch provides a middle schooler the opportunity to refuel and socialize. Students also use this time to meet with educators for additional academic support. Low performing students also have access to an iPad and MacBooks during their lunch period in order to practice testing strategies through web-based programs. Throughout the year, various groups and clubs have the opportunity to meet which is only afforded by the extended lunch time.

The schedule is flexible to the needs of the learning community. From rocket day and field days, to releasing student created weather balloons, and kayak regattas, the flexible learning schedule provides students with unique opportunities to share their knowledge and showcase their learning. The campus wide wireless network provides

FLOATING CLASSROOM

seamless wireless internet access to students and educators inside the learning studios and in outside community spaces. Outdoor classrooms are provided for classes and students may use the commons in the academic building as learning locations.

Currently the campus has 34 classrooms spanning four buildings and eight portables. The unique layout of the school allows educators to customize learning environments. Class sizes are restricted to the state allotment of 25 students or less. Educators do not view their brick and mortar classrooms as the only learning space available to them. Through generous contributions from the community, our campus offers students a chance to learn in a bamboo classroom, pine garden, and additional learning studios are being constructed.

The school is enhanced by a community funded floating classroom. The floating classroom is a 12 foot by 40 foot pontoon boat fitted with seating for up to 30 learners. This unique classroom allows students to conduct field work, collaborate with local environmentalists, and experience firsthand the ecosystems of Crooked Lake. Exploring the shores and depths of Crooked Lake, students and educators aboard the floating classroom are able to fully implement our various technologies.

At Bok Academy, the technology team maintains a current inventory of all the technology devices. At the start of the school year, technology devices are issued to each teacher. The technology team works closely with educators to set up the devices for effective teaching and learning in the learning studios. Learning studios are equipped with wireless access

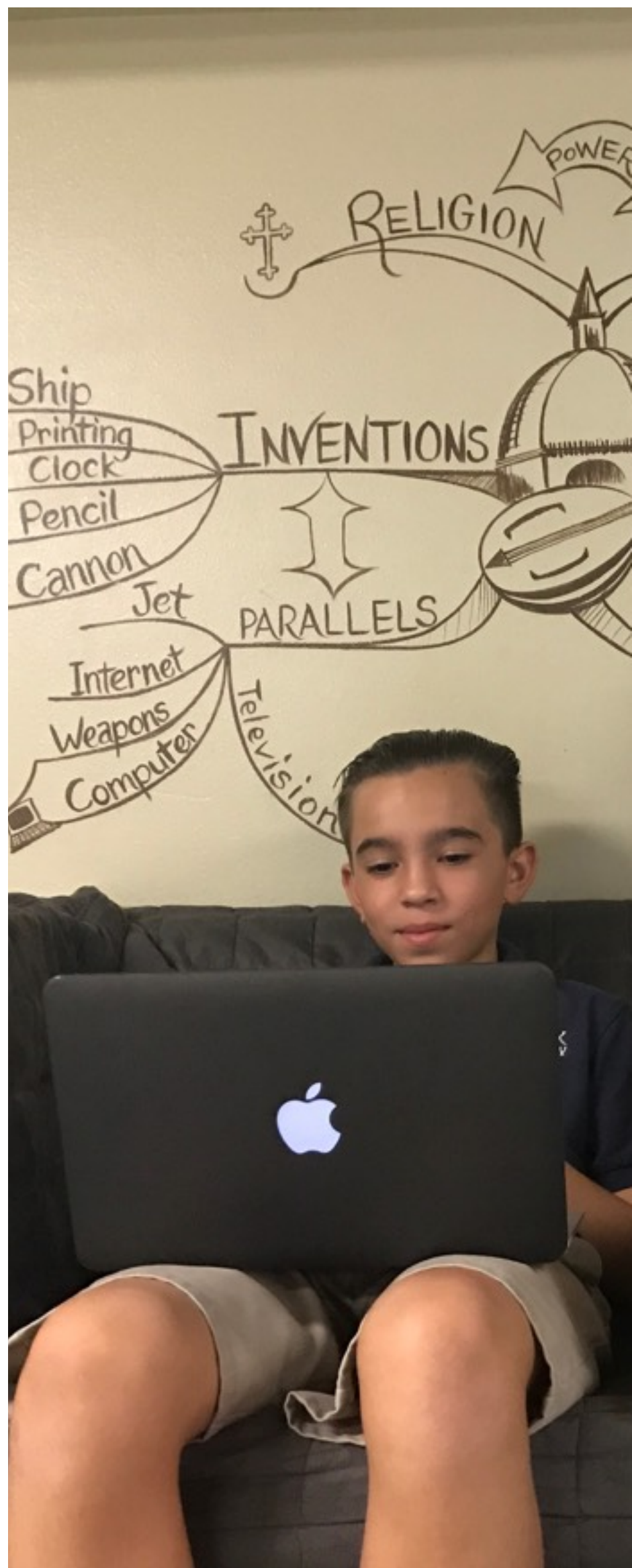
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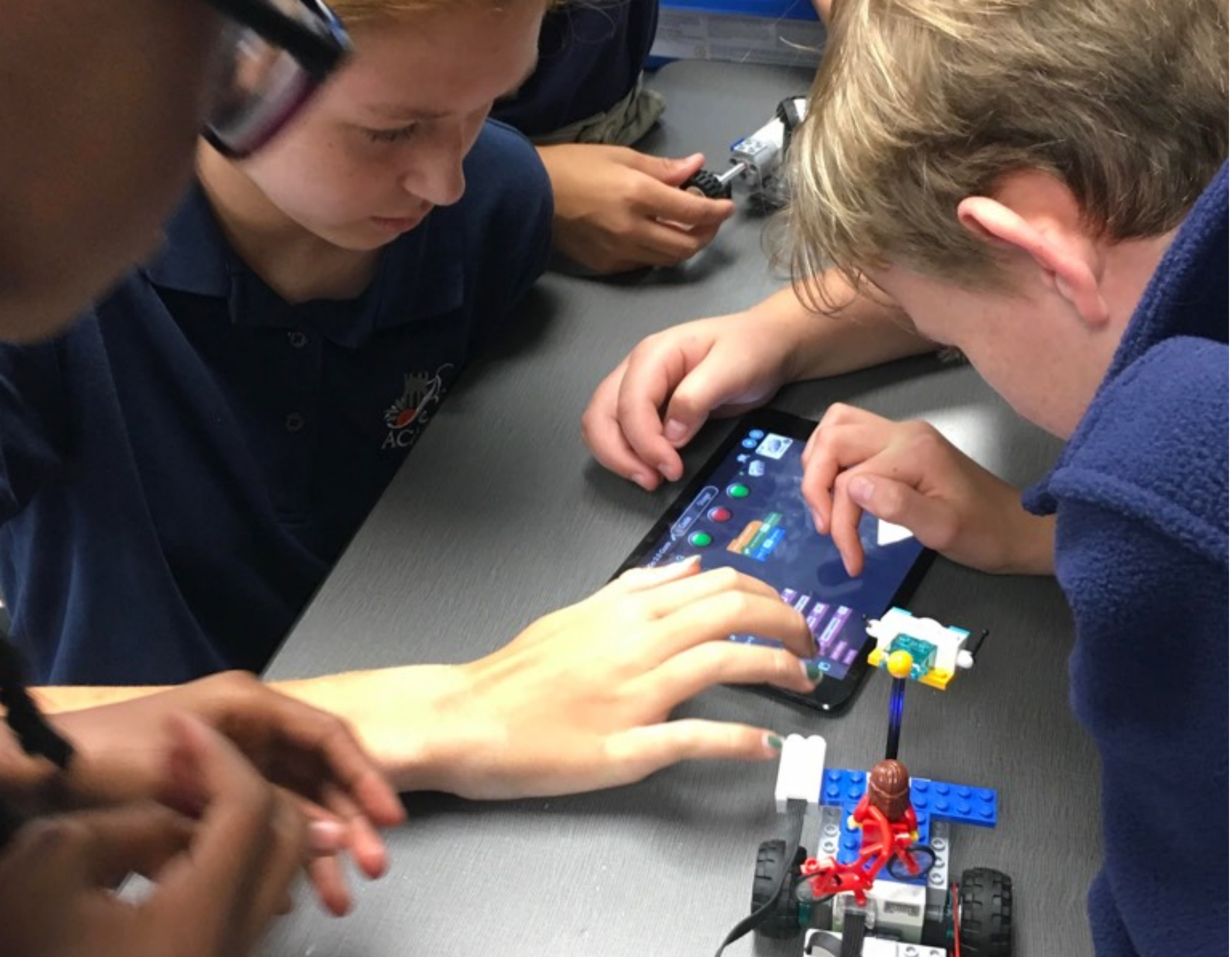
points to provide seamless access to the internet. Anywhere on Bok Academy's campus, students and educators can connect to the internet to deepen the teaching and learning process. This is especially exciting for the learning environments outside the four walls of the classroom.

Due of the size of Bok Academy, the school does not employ full-time IT staff members.

Full-time educators serve as technology team members. These voluntary members implement technology in their classrooms at a high level and are considered mentors who effectively design instruction, facilitate learning using technology, and troubleshoot most technology issues.

The technology team works diligently to compile and refine Bok Tech best practices based on observations, concerns, survey responses, and administrative directives in order to support educators and maximizing student engagement. To provide just-in-time support for educators, technology needs are submitted into a central ticketing system for Bok Academy so that they can be tracked and assigned to the correct members.





RESULTS

Data-driven instruction comes second-nature to the educators at Bok Academy. Progress monitoring exams and state standard results are analyzed each year by educators before students enter the learning studios. Departments routinely assess the impact lessons have on student learning through qualitative and quantitative data collection tools. Leadership requires educators to know the lowest quartile of learners, based on the state assessment.

In addition, leadership meets regularly to discuss data and where improvements must be made. Educating on a data-driven instructional campus, our educators are fully knowledgeable on how important data is to understanding and adapting curriculum needs of our students. Incorporating data collection, revolving around the use and impact of technology, has begun to take hold within the learning studios.

MEASURE

Leadership routinely observes learning studios and continuously looks for desired outcomes for the use of technology by both the educator and students. Each year, leadership outlines the technical infrastructure for departments based on observations. The tools and types of devices given to the learning studios is based on departmental needs, observations made by leadership, and how these devices will best support the curriculum. iPad are the tool of choice for the mathematics department, while MacBooks are used in the English Language Arts departments. Leadership listens to ideas from educators, students, department deans, and technology team members on how to enhance the learning. Professional development trainings evolve from the needs of the educators or by the observations made by leadership.

Measuring technology usage in the classroom surveys are sent to educators seeking valuable feedback about the use of technology within the learning studio. Using the results, technology mentors categorize educators into groups. Attaining, integrating, and transforming are often categories educators fall into. Technology mentors meet with educators to discuss current technology use, support new processes, and develop new techniques or strategies to use. Educators seek not only technology mentors, but other transformational colleagues for advice and ideas. Department deans routinely inquire what the department technology needs are, introduce new programs, provide technology resources, and seek integration ideas. Technology team members meet and discuss observations made within departments. Based on observations and surveys,

MENTOR

common documents supporting basic needs in the learning studios are made available to ensure equal access. Bok educators are self-motivated and many provide ideas, tidbits, and resources to all at staff meetings, parent meetings, and by emailing.

During the 2016-2017 school year, educators were given a technology self-reflection survey. Results show 70.3% of educators stated they “often” used technology to present material to students, while facilitating learning. The balance between presenting material and becoming a facilitator of student learning is a high mark. A growth marker noted from the survey by leadership and the technology mentors, is educators do not feel ready to move from substituting tasks to redefining learning.

Only 48.4% of educators felt somewhat prepared to use the SAMR model in lesson development protocol. Leadership is currently seeking fundamental trainings on the SAMR model. While professional development is being researched, leadership has encouraged the technology mentors to support educators and offer suggestions for moving select lessons out of the substitution stage.

Supporting the Renaissance thinking vision for the students often requires educators to think outside the box. Lessons often require the student to not only grasp the learning, but also grapple with ideas, discuss theories, test designs, and often endure failed attempts. Bok educators are encouraged to provide students with these critical thinking opportunities. Through observation, leadership sought opinions on what it means to be a Renaissance teacher. Challenge and project-based learning elements were reflected or were specifically mentioned. A case study focused on using challenge based learning began in December of



GROWTH MINDSET

2015. Leadership provided an e-book learning course during the winter break which exposed educators to challenge-based learning (CBL) and project-based learning (PBL). During the spring of 2016, department deans received professional development on CBL. During the training, department deans created iMovie trailers designed to entice their colleagues, challenging them to create a grade level CBL experience for the students at Bok Academy.

Over the course of three months, grade level CBL teams met to develop curriculum, supporting guides, collaborate on best practices, and create iMovie trailers introducing the grade level challenges to the student body. During a school-wide morning meeting, students viewed the trailers and the CBL experience began. The student experience included challenge blocks of time with a CBL leader, dedicated research time, off-campus field excursions, and experience talking with experts. In a post survey, 83% of educators indicated they were positively impacted through the experience. While over 66% of educators planned to use project or challenge-based learning as a part

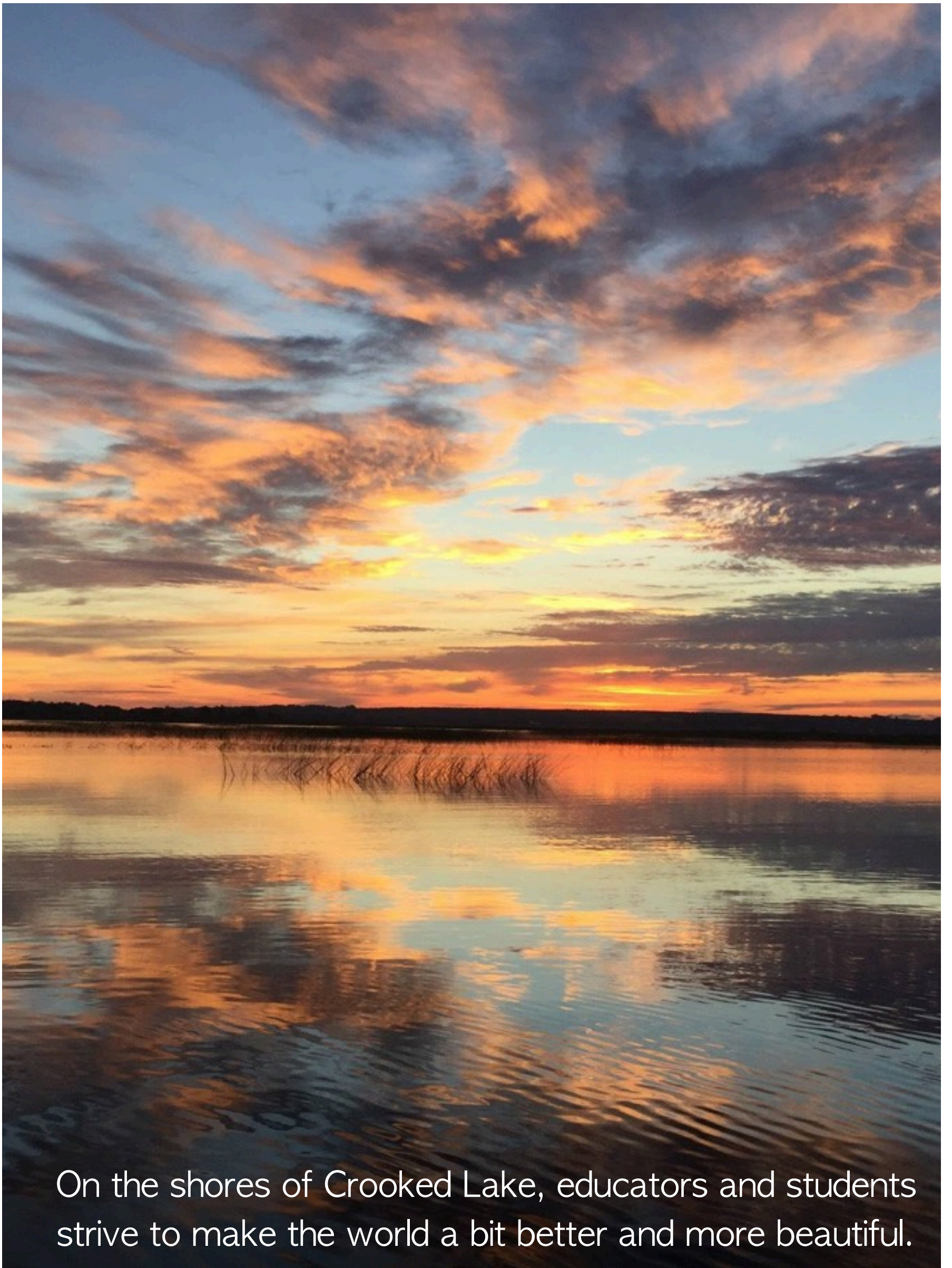
of their curriculum. Additionally, students were surveyed on their CBL experience. Over 83% of sixth grade students reported they would welcome a spring CBL experience during their 7th grade year. Consequently, only 45.3% of 7th graders wished to repeat the experience.

Upon reflection, Leadership noted there were more seasoned educators on the 6th grade team, than 7th. Due to the timing of the survey, data was not collected from the outgoing 8th graders. Both pre and post survey dates have been noted for the current year to ensure data is collected from each grade level. Other noteworthy survey results were educators requesting more training, dedicated time throughout the year to develop the CBL experience, and many desire support for the student's understanding the freedom of critical thinking and developing ideas, which may or may not come to fruition. Leadership recognizes, from the survey, that both educators and students want to be involved in the process. Educator

suggested student lead CBL to create an atmosphere where all connect and buy into the experience.

During the 2017-18 school year, Bok Academy is implementing dedicated planning sessions for grade-level CBL. The master schedule will be adjusted to support the CBL experience to allow students longer blocks of time to research, create, test, and share their learning. Keystone educators will be provided leadership roles thus allowing the academic educators to learn alongside project and challenge based experts.

Our continued desire to create Renaissance thinkers, who not only use technology to gather, learn, and share but who will utilize it to transform possibilities into realities.



On the shores of Crooked Lake, educators and students strive to make the world a bit better and more beautiful.



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