GRAND RAPIDS CHRISTIAN SCHOOLS

# TECHNOLOGY PLAN
# 2023 - 2026

***"Preparing students to be effective servants of Christ in contemporary society."***


**Superintendent: Aaron Winkle**
**Assistant Superintendent. of Finance and Operation: Jim Primus**
**Assistant Superintendent of Advancement and Instruction: Nick DeKoster**

**Contact: Sheila VanderWoude, Executive Director of Technology**
**Phone: 616.574.5810**
**Email: svanderwoude@grcs.org**

2400 Plymouth Ave SE
Grand Rapids, MI 49506
Phone 616. 574.6000
Fax 616. 574.6010
www.grcs.org

## TABLE OF CONTENTS


**Description of Grand Rapids Christian Schools**
- Who We Are — Page 4
- Role of Technology in our Vision and Mission — Page 5

**Teaching and Learning**
- Professional Development — Page 6
- Student Achievement — Page 7
- Technology Integration and Resources for Staff — Page 7
- Technology Staff — Page 9

**Goals**
- Academic Technology Goals — Page 10
- Professional Learning Goals — Page 15
- Administrative/Organizational Technology Goals — Page 17

**Resources**
- Teacher and Student Devices — Page 19
- Software — Page 19
- Infrastructure — Page 20

**Appendices**
- Appendix A: Michigan Integrated Technology Competencies — Page 21
- Appendix B: Responsible Use Policy — Page 29

# DESCRIPTION OF GRAND RAPIDS CHRISTIAN SCHOOLS

## WHO WE ARE

### Introduction

Grand Rapids Christian Schools (GRCS) is a private, non-profit organization, governed by a parent elected Board of Trustees. As the largest private school association in Michigan and the largest member of Christian Schools International (CSI), Grand Rapids Christian Schools is committed to providing a quality, faith-based education to students in preschool through 12th grade. GRCS nurtures the lives of a spiritually, culturally and economically diverse student body, preparing them to be effective servants of Christ in contemporary society. We hold ourselves to the highest standards as we strive for excellence in education, based on a foundation of faith, a tradition of excellence, and a legacy of success.

### Demographics and Staff

Grand Rapids Christian Schools serves approximately 2000 preschool through high school students in the metropolitan Grand Rapids area. Our campuses extend throughout the city and north into Rockford. GRCS has a teaching staff of 185 teachers. Approximately 14% of our student population is identified as qualifying for free/reduced lunch according to the federal government guidelines. Over 23% of our student body is ethnically diverse. Our student population represents over 207 churches, and 32 denominations (46% are Reformed or Christian Reformed). Further facts and information can be found on our website.

### Student Support System

Grand Rapids Christian Schools seeks to support and celebrate the gifts and abilities of each student. To ensure success for all our students, GRCS offers educational Student Support Services for those who may need assistance beyond the traditional classroom. Student support services serves over 330 students among all our schools with a wide variety of individualized services, including short term tutoring, testing, academic support, inclusion services for special needs students, academically talented support, behavior interventions, and social services. The growth of student support services has increased the need for assistive technologies and other resources.

## ROLE OF TECHNOLOGY IN OUR VISION AND MISSION

*"Preparing students to be effective servants of Christ in contemporary society."*

### Vision

The evolution and dynamics of technology has made a tremendous impact on our daily lives. Technology empowers productivity, promotes efficiencies, and creates opportunities for transforming learning. Technology has become a vehicle to help us in our journey of providing collaborative, data-informed instruction, adapting learning experiences to meet the needs of all learners. Our technology-rich learning environment allows us to transform our approaches to instruction and learning. Our vision for technology is to provide staff and students access to a variety of technologies that will enable them to cultivate an environment where staff and students learn, collaborate, create and innovate together.

### Mission

The mission statement at Grand Rapids Christian Schools is to prepare students to be effective servants of Christ in contemporary society. Technology is a powerful, transformational tool that assists in helping us meet our mission statement. Technology is an integral part of our teaching and learning practices allowing us to transform, support and enhance our curriculum and communication. Technology assists us in providing an educational program which recognizes and values the uniqueness and learning needs of all students as they research, design, analyze, compose and communicate while teachers serve as facilitators of instruction, mentors, and coaches.

### Executive Summary

This technology plan is intended to provide a comprehensive framework and planning document for the board, superintendent, building administration, building technology staff, teachers, support staff, parents, and students to guide the technology needs and support for the next three years at Grand Rapids Christian Schools. The technology plan addresses technology needs and planning in the categories of teaching and learning, professional development, and in an administrative/organization environment.

# TEACHING AND LEARNING

## PROFESSIONAL DEVELOPMENT

Professional development is an essential component of the Grand Rapids Christian Schools' plan to integrate technology into curriculum to support teaching and learning. Professional development for teachers, administrators, and other personnel will include awareness of technology standards and the continual development of technology literacies, strategies, and tools that support the integration of technology. GRCS recognizes that just as technology is continually evolving, changing, and growing; so will the strategies for meeting its professional goals.

**Technology professional development plans are focused around the following topics:**

- Classroom management tools
- Collaboration tools
- Communication tools
- Content area resources and tools
- Digital citizenship
- Formative and summative assessment tools
- Learning management systems
- Productivity and presentation tools

Professional development opportunities are largely coordinated by the Instruction Office and may be offered at different times and in different formats to maximize the opportunities for teacher participation. GRCS will work to provide a balanced approach of formal professional development opportunities and informal support and training experiences. Training for all staff is provided during professional development days, in required staff meetings, and anytime, anywhere through the GRCS PD Pathways modules. Training opportunities are also available through the Kent Intermediate School District with funding for these provided by GRCS as well as through Title funds.

Our anytime, anywhere GRCS PD Pathways includes many tech literacy and tech integration modules. Our current modules are:

- Accessibility Tools
- Apple Teacher – iPad, Pages, and Keynote Foundations
- Apple Teacher – Numbers, iMovie, and GarageBand for the iPad
- Canvas – Getting Started, Expectations, Creating and Using Google Assignments in Canvas, Creating and Using Canvas Native Assignments, Creating New Quizzes, Navigating Canvas Through a Student Lens, and Gamifying Your Canvas Course with Badges
- EdPuzzle
- FlipGrid
- Google Apps on the iPad
- iPads in the Classroom
- Seesaw – Introduction, Beyond the Basics, Literacy Strategies, and Creating Accessible Learning Experiences

## STUDENT ACHIEVEMENT

Empowering teachers to inspire minds and transforming instruction to deepen learning are part of our vision for equipping teachers with training, technology, and instructional environments that will enable them to put the best and most engaging teaching methods into practice with their students. It is vital that

we encourage and empower students to be critical thinkers and problem solvers. We need an instructional framework that is data-based, research-driven, and employs a problem-solving approach across all areas of learning for all students, including those with special needs and those who are academically gifted. Our aim is to identify and offer the resources and tools, learning strategies, interdisciplinary connections, and flexible, collaborative learning environments necessary for all students to thrive.

**Teacher Strategies to Improve Student Achievement Using Technology:**

- Discuss and compare student and teacher data in their professional learning communities.
- Utilize technology tools for formative and summative assessments to provide data-driven instruction for immediate feedback to the students enabling them to self-assess their results.
- Improve student engagement and agency by using design, development, and delivery of lessons that include interactive technology tools and/or resources.
- Create opportunities to access resources 24/7 by having a well-managed learning platform.
- Ensure equal access by providing students in grades five through twelve with a one-to-one device.
- Accommodate different learning styles by offering student choice using technology.
- Embrace all learners using accessibility tools to support their learning.
- Provide educational resources beyond textbooks such as IXL, Learning Ally, Happy Numbers, Epic, and PebbleGo to support curriculum.
- Increase technology literacy following the Michigan Integrated Technology Competencies for Students (MITECS) and International Society of Technology Education (ISTE) standards to students in grades kindergarten through six. Secondary staff will teach technology skills, following the MITECS and ISTE standards, as an integrated tool in their curriculum. See Appendix A.

## Technology Integration And Resources for Staff

Teaching practices are the key to effective instruction. Technology supports a teacher in delivering, scaling, and sustaining effective teaching practices providing tools that can allow a teacher to adapt and engage students with curriculum to meet the needs of all learners. Learning is enhanced by technology and it can transform teaching and learning, increase student engagement and motivation, authenticate learning, and increase critical thinking and collaboration skills.

**Technology Integration Strategies and Resources for Staff:**

- Learning Commons Team - A key factor for successful use of technology is the willingness to integrate new ideas into the teaching of content areas. The building Learning Commons team (i.e., Library Media Specialist, Technology Integration Specialists/Coaches, and the Learning Commons Aides) is a collaborative team that exists to support and direct students in their learning and support teachers in their instruction and communication work. Below are some of the ways the building level learning commons team supports staff:
    - Provide opportunities for teachers to learn current and emerging technologies and technology integration techniques.
    - Provide access to resources to assist teachers in integrating technology.
    - Develop strategies that encourage student agency deepening learning, increasing student achievement, while utilizing the power of technology and collaboration.

    - Collaborate with staff to develop and support active, hands-on learning opportunities for students so that there is a shift from students as consumers to students as creators.
    - Provide students and teachers with digital citizenship lessons that help promote safe online behavior reflective of the Portrait of a Graduate both at home and at school.
    - Collaborate at least two times per year with classroom teachers to ensure technology integration in relationship to the standards.
    - Maintain school level Learning Commons websites.
    - Integrate technology in curriculum by having our elementary tech staff co-teach with the classroom teacher one time per week.
- Learning Platforms – Teaching staff are required to maintain an online presence to create, deliver, and manage their curricular resources (Seesaw for elementary, Google Classroom for middle school, and Canvas for high school). The online classroom:
    - Provides a web-based system for course delivery so that staff and students can access course resources anytime, anywhere.
    - Simplifies the learning process and procedures making it responsive to student's needs.
    - Creates the opportunity for blended learning.
    - Enhances the opportunity for tracking and recording student progress to more efficiently provide data-driven instruction.
- Curriculum Mapping - To help with teaching essential standards while still focusing on our desire for faith integration, GRCS utilizes Curriculum Trak as a curriculum mapping tool for our K – 8 teachers. Curriculum Trak:
    - Offers a way to see the big picture while keeping the mapping process simple.
    - Aligns curriculum with instructional standards.
    - Encourages a collaborative culture among staff while facilitating curriculum articulation across subjects and grades.

## TECHNOLOGY STAFF

We have three district level technology positions, and a variety of building level technology education and tier one support positions at GRCS to assist staff with technology support.

- 1 full time director of technology.
- 1 full time district network specialist.
- 1 full time district technology support services specialist.
- 5 technology integration specialists/tech coaches (ranging from .2 FTE at the elementary to .7 FTE at the middle school and up to 1.0 FTE at the high school).
- Technology aides with various hours to support the technology integration specialist and to provide help desk coverage.

# GOALS

## ACADEMIC TECHNOLOGY GOALS

### ACADEMIC TECH GOAL 1

**CULTIVATE A TECHNOLOGY-RICH EDUCATIONAL ENVIRONMENT FOCUSED ON COLLABORATION, CREATIVITY, CRITICAL THINKING, AND COMMUNICATION TO SUPPORT AND ENHANCE TEACHING AND LEARNING.**

**Measurable Objective 1.1**

Teachers design and implement integrated digital learning experiences aligned to curriculum and technology (ISTE/MITEC) standards.

| Action Items | Staff Responsible |
|---|---|
| Provide opportunities for digital learning experiences that increase student engagement and agency.<br>● Embrace student choice utilizing the collaborative and creative tools in a digital environment.<br>● Choose the appropriate tech tools for the tasks assigned. | Building Level Tech and Teaching Staff |
| Ensure equity and accessibility for all learners.<br>● Encourage individual teachers to complete the PD Pathways module on accessibility.<br>● Support staff in how to utilize accessibility features such as speech-to-text and text-to-speech options to support all learners. | Building Level Tech and Teaching Staff |
| Select the language of one technology framework GRCS will incorporate (example: Triple E, SAMR, TPACK).<br>● Use the language of a framework with staff to evaluate tech tools, to engage students with learning goals, and to create authentic learning opportunities beyond the school walls when planning and analyzing lessons/units. | Director of Tech, Building Level Tech and Teaching Staff |
| Establish authentic and global connections that engage students in the learning process.<br>● Clarify what is meant by a global connection.<br>● Ensure that students have at least two global connection learning experiences at each of the primary, middle, and high school levels.<br>● Document authentic digital activities occurring. | Building Level Tech and Teaching Staff |
| Cultivate a culture of feedback and growth to ensure all students are flourishing.<br>● Use technology tools for assessments to collect data to make informed decisions.<br>● Expand the use of digital formative and summative assessment tools. | Building Level Tech and Teaching Staff |

**Measurable Objective 1.2**

All teachers will utilize an age-appropriate learning platform that provides students with 24/7 access to a variety of resources, online activities and interactives, and the opportunity to share and extend their learning.

| **Action Items** | **Responsibility** |
|---|---|
| Inform and equip teachers with the knowledge and skills needed to create an age-appropriate learning platform.<br>● GRCHS tech coaches will equip and support all teachers on their use of Canvas as an effective learning management system.<br>● GRCMS and RCMS tech integration specialists will equip and support all teachers on their use of Google Classroom as a blended learning platform.<br>● Iroquois, Evergreen, and RCES tech integration specialists will equip and support all teachers on their use of Seesaw as an evidence-based, engaging learning platform, and connect parents to their student's account. | Building Level Tech and Teaching Staff |
| Reinforce the continual growth and use of an effective, engaging learning platform by annually identifying the learning platform strengths, future needs, and areas to grow.<br>● Building level tech staff meet with each teacher minimally one time per year to support teaching staff with this learning platform review. | Building Level Tech and Teaching Staff |
| Annually evaluate the usage of Google classroom at the middle school level to be prepared to shift to a different learning platform such as Seesaw or Canvas. | Tech Staff, Teaching and Curriculum Staff |

### Measurable Objective 1.3

Clearly communicate staff and student technology expectations and equip them with the skills and knowledge to be able to meet these expectations.

| Action Items | Staff Responsible |
|---|---|
| Equip employees with the professional development needed to successfully meet the technology expectations.<br>● Create 2 new PD Pathways modules:<br>○ GRCS digital ecosystem (and technology expectations).<br>○ Aide/parapro technology tools.<br>● Develop a plan for building level tech staff to equip their new staff with the knowledge needed to meet the technology expectations at the new staff building orientation.<br>● Meet with aides/parapros as needed to provide them with their needs to meet the tech expectations. | Director of Tech and Building Level Tech |
| Document a list of teaching staff technology expectations for elementary, middle, and high school staff. | Director of Tech and Building Level Tech |
| Document a list of student related technology expectations, and develop a plan at each school on how and where students will gain this knowledge. | Building Level Tech and Teaching Staff |
| Review technology expectations with students at different touch points throughout the year. | Building Level Tech |
| Continue to provide age-appropriate tips for parents about best practices for using school technology devices and internet filtering via home bulletins, class newsletters, Seesaw, and classroom connect evening events. | Building Level Tech |

## ACADEMIC TECH GOAL 2

**PREPARE STUDENTS TO LIVE AS SAFE, RESPONSIBLE AND INNOVATIVE CHRISTIAN DIGITAL CITIZENS WHEN SEARCHING, CONSUMING, CREATING, AND SHARING CONTENT.**

### Measurable Objective 2.1

Where appropriate, modify the GRCS Digital Citizenship Curriculum to intentionally incorporate Christian practices and perspectives so that students actively and authentically engage the Christian faith in their digital lives.

| Action Items | Responsibility |
|---|---|
| Evaluate the GRCS adopted digital citizenship curriculum and identify areas for faith practices and perspectives. By spring of 2024, faith intersections will be added to 50% of the digital citizenship lessons. | Director of Tech and Building Level Tech |

### Measurable Objective 2.2

Crosswalk the GRCS Digital Citizenship Curriculum with other content areas, and equip teachers with engaging students in digital citizenship lessons aligned with their curriculum.

| Action Items | Responsibility |
|---|---|
| Integrate digital citizenship concepts in other content areas.<br>● By fall of 2024, building tech staff will have identified which digital citizenship lessons will be taught by the Learning Commons team, and which will be taught within content areas.<br>● By spring of 2024, building tech staff and curriculum staff will have aligned digital citizenship content that is to be integrated into other content areas not taught by the Learning Commons team.<br>● By fall of 2025, building tech staff and curriculum staff will have met with teaching staff to discuss the inclusion of these digital citizenship topics within their content area. | Building Level Tech, Curriculum Staff, and Teaching Staff |

### Measurable Objective 2.3

Staff and students will understand issues related to the appropriate and ethical use of technology, leading to the development of Christian digital citizenship habits.

| Action Items | Responsibility |
|---|---|
| Develop a document to outline citation practices at each level. | Director of Technology, Building Tech Staff, and Learning Commons Staff |
| Use appropriate research and citation practices.<br>● Increased conversation with teachers and questioning through formal and informal observations of teacher citation practices. | Building Tech Staff, Teaching Staff, and Building Administration |
| Grow in awareness and develop prevention strategies for cyberbullying.<br>● Teachers teach cyberbullying prevention and response strategies through their integrated digital citizenship lessons.<br>● Student led initiative to build awareness of cyberbullying.<br>● Develop a plan for addressing cyberbullying issues that occur off campus but the effects are visible in school. | Building Tech Staff, Teaching Staff, Social Worker, and Building Administration |

## PROFESSIONAL LEARNING GOALS

### PROFESSIONAL LEARNING TECH GOAL 3

**DEVELOP A CULTURE OF CONTINUOUS, COLLABORATIVE, AND PERSONALIZED LEARNING TO INCREASE STAFF TECHNOLOGY LITERACY SUPPORTING STAFF IN THEIR DAILY ROUTINES WHILE INSPIRING AND PREPARING THEM TO INTEGRATE TECHNOLOGY WITH CURRICULUM STANDARDS.**

**Measurable Objective 3.1**

Provide support and opportunities to enable educators to continually leverage technology to foster student learning aligned to the technology standards.

| Action Items | Responsibility |
|---|---|
| Increase the visibility/accessibility of the ISTE/MITEC standards. | Building Level Tech |
| In addition to the age-appropriate learning platform meeting, building level tech staff will meet individually with all teaching staff to help them grow in their use of technology.<br>● Meet one time/year with teachers to specifically:<br>○ Listen and celebrate with the individual teacher on how they are using technology with their students.<br>○ Offer additional support to help the teacher grow in their technology literacy and integration skills.<br>● Follow-up reflection will provide measurable data on student learning and the impact this goal had on the teacher's future teaching practice. | Building Level Tech |
| Share new, innovative, and emerging technologies with staff that support integration, assessment, and communication. | Building Level Tech |
| Encourage and celebrate teacher technology accomplishments in a visible way with all staff. | Building Level Tech |

### Measurable Objective 3.2

Plan and lead professional development activities that provide teachers with a variety of pathways to lead and learn in technology.

| Action Items | Responsibility |
|---|---|
| Conduct a technology needs assessment.<br>● Data collected will be reviewed by tech and curriculum staff to determine learning needs for staff. | Director of Tech, Building Level Tech, and Curriculum Staff |
| Encourage staff members to participate in webinars and other online opportunities. | Director of Tech and Curriculum Staff |
| Continue to provide sessions for all staff on new and emerging technologies as well as updates and refreshers in a variety of environments such as staff PD days, lunch and learns, learning labs, etc. | Director of Tech, Building Level Tech, and Curriculum Staff |
| Provide personalized technology PD through PD Pathways.<br>● Annually update existing technology modules as needed.<br>● Add modules on GRCS tech ecosystems and expectations.<br>● Add technology modules related to end user security and workflows. | Director of Tech, Tech Support Staff, and Building Level Tech |
| Encourage and assist teaching staff to complete the Apple Teacher training to grow the number of Apple Certified teachers.<br>● Introduce Apple Teacher to teachers.<br>● Lead optional group sessions to work on badges together.<br>● Celebrate new Apple teachers in visible ways.<br>● Incorporate and promote the Apple Teacher certification and portfolio options in PD Pathways. | Building Level Tech |

## Administrative/Organizational Technology Goals

### Administrative/Organizational Tech Goal 4
**Elevate the usage of our technology support systems.**

**Measurable Objective 4.1**
Develop and articulate technology support avenues for employees and students to use.

| Action Items | Responsibility |
|---|---|
| Develop and implement a plan for a GRCS Tech Hub supporting employees with learning resources, policies and standards, request forms, and a help desk ticketing system. | Tech Support Team |
| Design a new tech help desk form for students. | Tech Support Team |

**Measurable Objective 4.2**
Boost GRCS in-house knowledge for supporting and repairing Apple devices.

| Action Items | Responsibility |
|---|---|
| Provide a GRCS tech staff employee with the time and training to obtain the Apple Device Support and Apple Deployment and Management certifications. | Tech Support Specialist |

### Administrative/Organizational Tech Goal 5
**Remain up-to-date with technologies that support the work of GRCS.**

**Measurable Objective 5.1**
Improve classroom audio enhancement systems as needed.

| Action Items | Responsibility |
|---|---|
| Purchase and install classroom audio systems at Evergreen and Rockford to enhance voice and device amplification. | Tech Support Team |
| Purchase and install a classroom audio system for the Grand Rapids Christian High School orchestra room. | Tech Support Team |

**Measurable Objective 5.2**
Enhance the instructional impact and security options of Google Workspace.

| Action Items | Responsibility |
|---|---|

| | |
|---|---|
| Purchase and implement Google Workspace for Education Plus to increase security, analytics, and enhanced teaching and learning tools. | Tech Support Team |

## ADMINISTRATIVE/ORGANIZATIONAL TECH GOAL 6
### PROVIDE SAFE AND SECURE DIGITAL ECOSYSTEMS.

**Measurable Objective 6.1**
The technology team will annually review and evaluate products, policies, practices, and procedures to keep our online environment safe, while providing access to resources and products beneficial for education.

| Action Items | Responsibility |
|---|---|
| Annually review technology policies, practices and procedures.<br>● Internet filter system - practice and procedures for monitoring.<br>● Responsible Use Policy.<br>● GRCS Technology Plan.<br>● Disaster Recovery Plan. | Tech Support Team |

**Measurable Objective 6.2**
Investigate tools and practices to promote a secure technology environment.

| Action Items | Responsibility |
|---|---|
| Research and implement a digital signature app to securely send and sign agreements. | Tech Support Team |
| Research and implement the use of a file sharing app for safe file transfer. | Tech Support Team |
| Explore and implement password practices and procedures.<br>● Distribution of passwords to new staff.<br>● Local admin password on devices.<br>● Password change frequency and length of passwords. | Tech Support Team |
| Provide employees with security awareness training to prevent and mitigate user and organizational risk. | Tech Support Team |
| Maintain infrastructure security by proactively monitoring network and internet anomalies (such as students using VPN's, ChatGPT, and games). | Tech Support Team |

# RESOURCES

## STUDENT AND TEACHER DEVICES

All five of our district schools are equipped with technology tools for teacher and student use.

- Classroom teachers have a laptop assigned to them and the availability of a classroom iPad.
- Classrooms all have a projector and an Apple TV for screen mirroring.
- External DVD drives, presentation remotes, tripods, document cameras, microphones, and green screens can be checked out for use from the Learning Commons.
- Parapros have access to an equivalent device that the students they support are using.
- Our elementary schools have several shared iPad carts. We try to assign one iPad/student at the third and fourth grade levels.
- Our middle school students (grades 5 – 8) are issued an iPad to use during the school year. Schools at the one-to-one campuses determine at what level devices go home with their students.
- Our high school students are issued a laptop to use during the school year.

Our current device life cycle for laptops and tablets is approximately four to six years. Our one-to-one student devices are on a four-year life cycle. Students have the option to purchase their device at the close of the cycle. Those devices not purchased are sold to others in our community. Staff devices typically are refreshed on a five-year cycle. Desktops are refreshed every six to eight years.

District policies and guidelines have been implemented to ensure proper and effective use of technology. Technology policies and guidelines are posted on our Instructional Technology link on the Grand Rapids Christian School webpage. These include such items as a technology permission slip, device contract and consent form, responsible use policy, and a technology handbook.

## SOFTWARE

A variety of district level and educational software is used at the different levels. Below is a sampling of our software.

- Internet filtering software: ContentKeeper, with appliances on both internet connections and remote filtering for student devices.
- Server-based applications include: Stoneware, RECTRAC, Edupoint Synergy, Web HelpDesk, and ShoreTel/MiTel.
- Hosted applications include: Blackbaud Financial Edge and Raiser's Edge, Destiny, and MealMagic.
- Educational software includes: Canvas, Google Workspace for Education, Happy Numbers, IXL, Reading Horizons, and Seesaw.
- Assessment software includes: AimsWebPlus and NWEA MAPs.

## INFRASTRUCTURE

Effective educational use of technology requires up-to-date technological tools and the technical support which allows for consistent, planned use by staff, students, administrators, and parents. As resources become available, each school will be provided with the necessary hardware and software to implement the vision of this plan. The goal of Grand Rapids Christian Schools is to continue to improve on our technology infrastructure facilitating the use of wired and wireless computing devices in each of our school buildings while supporting technology integration in the classroom.

Currently, GRCS's infrastructure includes single mode fiber linking Grand Rapids Christian Elementary School – Iroquois campus, Grand Rapids Christian Elementary School – Evergreen campus, Grand Rapids Christian Middle School and Grand Rapids Christian High School. Rockford Christian School is connected

via an internet-based VPN between sites. All buildings have wired and wireless (802.11 gacx standard) network access.

We have the following server and appliance platforms:

- VMWare: 8 servers, hosting 21 virtual servers (Windows m2012r2/2019)
- Eight non-VM servers running Windows 2008r2/2012r2/2016
- Email: Google Workspace for Education
- Imaging and management platforms: JAMF Pro (for Mac/iOS)
- Firewall: Meraki

All hardware and software purchases must meet district standards. The review, evaluation, and purchase of hardware and software is a collaborative process between the building Technology Integration Specialists, District Network and Technology Support Specialists, and the Director of Technology. A web-based Help Desk system provides reporting and resolution of technology issues.

Our phone system is a ShoreTel/MiTel IP based phone system networked throughout the district. Voicemail is provided to district employees. Key staff members are equipped with cell phones providing greater accessibility in case of emergency and routine communications needs. There are also 2-way radios in each building.

# APPENDICES

## APPENDIX A: MICHIGAN INTEGRATED TECHNOLOGY COMPETENCIES FOR STUDENTS BY AGE BAND

### AGE BAND ARTICULATION: AGES 4–7

1. Empowered Learner

   Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.

   1.a With guidance from an educator, students consider and set personal learning goals and utilize appropriate technologies that will demonstrate knowledge and reflection of the process.

   1.b With guidance from an educator, students learn about various technologies that can be used to connect to others or make their learning environments personal and select resources from those available to enhance their learning.

   1.c With guidance from an educator, students recognize performance feedback from digital tools, make adjustments based on that feedback and use age-appropriate technology to share learning.

   1.d With guidance from an educator, students explore a variety of technologies that will help them in their learning and begin to demonstrate an understanding of how knowledge can be transferred between tools.

2. Digital Citizen

   Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act in ways that are safe, legal and ethical.

   2.a Students practice responsible use of technology through teacher-guided online activities and interactions to understand how the digital space impacts their life.

   2.b With guidance from an educator, students understand how to be careful when using devices and how to be safe online, follow safety rules when using the internet and collaborate with others.

   2.c With guidance from an educator, students learn about ownership and sharing of information, and how to respect the work of others.

   2.d With guidance from an educator, students demonstrate an understanding that technology is all around them and the importance of keeping their information private.

3. Knowledge Constructor

   Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

   3.a With guidance from an educator, students use digital tools and resources, contained within a classroom platform or otherwise provided by the teacher, to find information on topics of interest.

3.b With guidance from an educator, students become familiar with age-appropriate criteria for evaluating digital content.

3.c With guidance from an educator, students explore a variety of teacher-selected tools to organize information and make connection to their learning.

3.d With guidance from an educator, student explore real-world issues and problems and share their ideas about them with others.

4. Innovative Designer

Students use a variety of technologies within a design process to solve problems by creating new, useful or imaginative solutions.

4.a With guidance from an educator, students ask questions, suggest solutions, test ideas to solve problems and share their learning.

4.b Students use age-appropriate digital and non-digital tools to design something and are aware of the step-by-step process of designing.

4.c Students use a design process to develop ideas or creations, and they test their design and redesign if necessary.

4.d Students demonstrate perseverance when working to complete a challenging task.

5. Computational Thinker

Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

5.a With guidance from an educator, students identify a problem and select appropriate technology tools to explore and find solutions.

5.b With guidance from an educator, students analyze age-appropriate data and look for similarities in order to identify patterns and categories.

5.c With guidance from an educator, student break a problem into parts and identify ways to solve the problem.

5.d Students understand how technology is used to make a task easier or repeatable and can identify real-world examples.

6. Creative Communicator

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

6.a With guidance from an educator, students choose different tools for creating something new or for communicating with others.

6.b Students use digital tools to create original works.

6.c With guidance from an educator, students share ideas in multiple ways-visual, audio, etc.

6.d With guidance from an educator, students select technology to share their ideas with different people.

7. Global Collaborator

Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

7.a With guidance from an educator, students use technology tools to work with friends and with people outside their neighborhood, city and beyond.

7.b With guidance from an educator, students use technology to communicate with others and to look at problems from different perspectives.

7.c With guidance from an educator, students take on different team roles and use age-appropriate technologies to complete projects.

7.d With guidance from an educator, students use age-appropriate technologies to work together to understand problems and suggest solutions.

### Age Band Articulation: Ages 8–11

1. Empowered Learner

Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.

1.a Students develop learning goals in collaboration with an educator, select the technology tools to achieve them, and reflect on and revise the learning process as needed to achieve goals.

1.b With the oversight and support of an educator, students build a network of experts and peers within school policy and customize their environments to enhance their learning.

1.c Students seek feedback from both people and features embedded in digital tools, and use age-appropriate technology to share learning.

1.d Students explore age-appropriate technologies and begin to transfer their learning to different tools or learning environments.

2. Digital Citizen

Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act in ways that are safe, legal and ethical.

2.a Students demonstrate an understanding of the role an online identity plays in the digital world and learn the permanence of their decisions when interacting online.

2.b Students practice and encourage others in safe, legal and ethical behavior when using technology and interacting online, with guidance from an educator.

2.c Students learn about, demonstrate and encourage respect for intellectual property with both print and digital media when using and sharing the work of others.

2.d Students demonstrate an understanding of what personal data is, how to keep it private and how it might be shared online.

3. Knowledge Constructor

Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

3.a Students collaborate with a teacher to employ appropriate research techniques to locate digital resources that will help them in their learning process.

3.b Students learn how to evaluate sources for accuracy, perspective, credibility and relevance.

3.c Using a variety of strategies, students organize information and make meaningful connections between resources.

3.d Students explore real-world problems and issues and collaborate with others to find answers or solutions.

4. Innovative Designer

Students use a variety of technologies within a design process to solve problems by creating new, useful or imaginative solutions.

4.a Students explore and practice how a design process works to generate ideas, consider solutions, plan to solve a problem or create innovative products that are shared with others.

4.b Student use digital and non-digital tools to plan and manage a design process.

4.c Students engage in a cyclical design process to develop prototypes and reflect on the role that trial and error plays.

4.d Students demonstrate perseverance when working with open-ended problems.

5. Computational Thinker

Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

5.a Students explore or solve problems by selecting technology for data analysis, modeling and algorithmic thinking, with guidance from an educator.

5.b Students select effective technology to represent data.

5.c Students break down problems into smaller parts, identify key information and propose solutions.

5.d Students understand and explore basic concepts related to automation, patterns and algorithmic thinking.

6. Creative Communicator

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

6.a Students recognize and utilize the features and functions of a variety of creation or communication tools.

6.b Students create original works and learn strategies for remixing or repurposing to create new artifacts.

6.c Students create digital artifacts to communicate ideas visually and graphically.

6.d Students learn about audience and consider their expected audience when creating digital artifacts and presentations.

7. Global Collaborator

Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

7.a Students use digital tools to work with friends and people from different backgrounds or cultures.

7.b Students use collaborative technologies to connect with others, including peers, experts and community members, to explore different points of view on various topics.

7.c Students perform a variety of roles within a team using age-appropriate technology to complete a project or solve a problem.

7.d Students work with others using collaborative technologies to explore local and global issues.

### Age Band Articulation: Ages 12–14

1. Empowered Learner

Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.

1.a Students articulate personal learning goals, select and manage appropriate technologies to achieve them, and reflect on their successes and areas of improvement in working toward their goals.

1.b Students identify and develop online networks within school policy, and customize their learning environments in ways that support their learning, in collaboration with an educator.

1.c Students actively seek performance feedback from people, including teachers, and from functionalities embedded in digital tools to improve their learning process, and they select technology to demonstrate their learning in a variety of ways.

1.d Students are able to navigate a variety of technologies and transfer their knowledge and skills to learn how to use new technologies.

2. Digital Citizen

Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act in ways that are safe, legal and ethical.

2.a Students manage their digital identities and reputations within school policy, including demonstrating an understanding of how digital actions are never fully erasable.

2.b Students demonstrate and advocate for positive, safe, legal and ethical habits when using technology and when interacting with others online.

2.c Students demonstrate and advocate for an understanding of intellectual property with both print and digital media-including copyright, permission and fair use-by creating a variety of media products that include appropriate citation and attribution elements.

2.d Students demonstrate an understanding of what personal data is and how to keep it private and secure, including the awareness of terms such as encryptions, HTTPS, password, cookies and computer viruses; they also understand the limitations of data management and how data0collection technologies work.

3. Knowledge Constructor

Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

3.a Students demonstrate and practice the ability to effectively utilize research strategies to locate appropriate digital resources in support of their learning.

3.b Students practice and demonstrate the ability to evaluate resources for accuracy, perspective, credibility and relevance.

3.c Students locate and collect resources from a variety of sources and organize assets into collections for a wide range of projects and purposes.

3.d Students explore real-world issues and problems and actively pursue and understanding of them and solutions for them.

4. Innovative Designer

Students use a variety of technologies within a design process to solve problems by creating new, useful or imaginative solutions.

4.a Students engage in a design process and employ it to generate ideas, create innovative products or solve authentic problems.

4.b Students select and use digital tools to support a design process and expand their understanding to identify constraints and trade-offs and to weight risks.

4.c Students engage in a design process to develop, test and revise prototypes, embracing the cyclical process of trial and error and understanding problems or setbacks as potential opportunities for improvement.

4.d Students demonstrate an ability to persevere and handle greater ambiguity as they work to solve open-ended problems.

5. Computational Thinker

Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

5.a Students practice defining problems to solve by computing for data analysis, modeling or algorithmic thinking.

5.b Students find or organize data and use technology to analyze and represent it to solve problems and make decisions.

5.c Students break problems into component parts, identify key pieces and use that information to problem solve.

5.d Student demonstrate an understanding of how automation works and use algorithmic thinking to design and automate solutions.

6. Creative Communicator

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

6.a Students select appropriate platforms and tools to create, share and communicate their work effectively.

6.b Students create original works or responsibly repurpose other digital resources into new creative works.

6.c Students communicate complex ideas clearly using various digital tools to convey the concepts textually, visually, graphically, etc.

6.d Students publish or present content designed for specific audiences and select platforms that will effectively convey their ideas to those audiences.

7. Global Collaborator

Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

7.a Students use digital tools to interact with others to develop a richer understanding of different perspectives and cultures.

7.b Students use collaborative technologies to connect with others, including peers, experts and community members, to learn about issues and problems or to gain broader perspective.

7.c Students determine their role on a team to meet goals, based on their knowledge of technology and content, as well as personal preference.

7.d Students select collaborative technologies and use them to work with others to investigate and develop solutions relate to local and global issues.

Adapted from ISTE Standards for Students, ©2016, ISTE® (International Society for Technology in Education), iste.org. All rights reserved.

# APPENDIX B: RESPONSIBLE USE POLICY

## GRAND RAPID CHRISTIAN SCHOOLS TECHNOLOGY RESPONSIBLE USE POLICY

### PREAMBLE

Our world belongs to God. Technology resources are powerful tools, and teamed with skillful teachers, can be used to effectively prepare students to be effective servants of Christ in contemporary society. The use of school provided technology is a privilege, not a right, and staff and students at Grand Rapids Christian Schools (GRCS) are expected to use the technology to support and enhance education and communication. In order to facilitate a safe and functional Christian educational environment, members of the GRCS community are expected to adhere to the policy as outlined below.

### SCOPE

Individuals ("users") covered by this policy include all authorized users including but not limited to staff, teachers, students, subcontractors and visitors. It includes all GRCS technology resources such as servers, desktops, laptops, tablets, printers, projectors, cameras, software, apps and internet access. As responsible caretakers of all that God has entrusted to us, we expect users to apply this policy to the use of GRCS technology resources both on GRCS campuses and off-site, including the use of personal devices when at GRCS sponsored activities.

### RESPONSIBILITIES

a. All users are expected to engage with GRCS technology resources in ways that are God-honoring, responsible, ethical, and legal. Use of technology resources must be in compliance with federal and state laws.

b. As children of God created in His image, all users are expected to avoid unethical internet usage and inappropriate use of social media such as cyberbullying. Users should report such behaviors to GRCS staff.

c. All users are required to use technology resources in accordance with the GRCS code of conduct in addition to any other relevant GRCS guidelines. Violations include but are not limited to harassment, defamation, threatening or discriminatory behavior, and accessing obscene material.

d. Plagiarism and copyright infringement through technology resources is strictly prohibited.

e. Attempted or actual modification of restrictions or protections without authorization from technology staff is strictly prohibited.

f. Users are permitted to download and install relevant and appropriately licensed programs provided they have received approval from technology staff.

g. Unsolicited mailings (e.g. spam, forwards) are prohibited.

h. Business activities, such as advertising or buying and selling of goods and services using GRCS technology resources are prohibited.

i. Users agree to take reasonable precautions, to maintain and to protect GRCS technology resources. Users agree to abide by care instructions as outlined in any guides, manuals or verbal instructions that come with technology resources given by technology staff.

j. Users agree never to attempt to damage, destroy or otherwise physically abuse GRCS technology resources.

k. Users agree to manage their individual use of technology resources in ways that do not detrimentally affect other users (e.g. not streaming music, not monopolizing printers, etc).

l. Users agree never to connect unapproved devices to the GRCS network.

m. Users agree not to hold GRCS liable for losses or damages incurred by failure or malfunction of technology resources.

n. Any damage to or malfunction of technology resources, whether accidental or not, is to be reported promptly and with full disclosure to technology staff.

## SAFETY AND PRIVACY CONSIDERATIONS

a. Users agree to use only approved logins to access accounts and to keep their own login information secure.

b. Users agree not to share any GRCS login/account data with any person or organization unless approved or requested by administration or technology staff.

c. Users agree to protect and maintain their accounts by logging out or locking the computer. Users will monitor and report unusual activity on their technology resources.

d. Users agree not to access, modify, or destroy other users' information.

e. Users agree not to allow use of GRCS technology resources by unauthorized persons such as family and friends.

f. GRCS will provide education and training to students on (1) safe and appropriate online behavior, such as interacting with other individuals on social networking sites, and (2) cyber-bullying awareness and responses.

g. Users agree that all electronic files stored on school resources, including e-mail messages, are property of GRCS.

h. Users agree that GRCS administration and technology staff reserve the right to monitor and inspect files stored on school resources for conformity with policies, licensing standards and state or federal law. Users understand and agree that any files accessed, created, or stored on school resources are not private.

i. Users understand and agree that GRCS has implemented technology measures that block/filter internet access to visual images that are obscene, illegal or otherwise harmful to minors. Users (and their parent/guardians) are nevertheless advised that users may gain access to unauthorized websites, and GRCS cannot guarantee that users will not access websites that they (or their parents/guardians) would find inappropriate, offensive, objectionable or controversial. Users (and their parents/guardians) agree not to hold GRCS liable for any such material that they may find as a result of using GRCS's technology resources.

j. To promote student safety and ensure compliance with this policy, internet, network and other technology-related activities will be monitored or restricted using filtering, passive supervision technologies and periodic checks by technology staff.

## DISCIPLINARY ACTION

Violation of any part of the above policy may result in restriction or suspension of access to technology resources, notification of law enforcement, financial restitution, or other disciplinary measures as determined by GRCS administration.

Policy reviewed and approved by the Board of Trustees - Revised June 2014

GR_DOCS 1809291v1