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Date: July 16, 2021

Consent Agenda Item (Action Item): Approve Floyd County Technology Integration Handbook K-12

Applicable State or Regulations: BOE Policy 01.11 General Powers and Duties of the Board

Budget/Financial Issues:


Grades 1,5,9 Chromebooks: \$541,022.55 Title 1 Funds

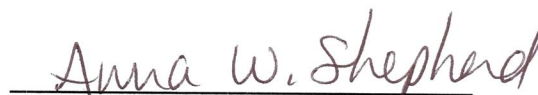
Grade 1-4 Sleeves: \$12,873.70 ESSER

Grades 5<sup>th</sup> and 9<sup>th</sup>: Bookbags: \$49,789.26

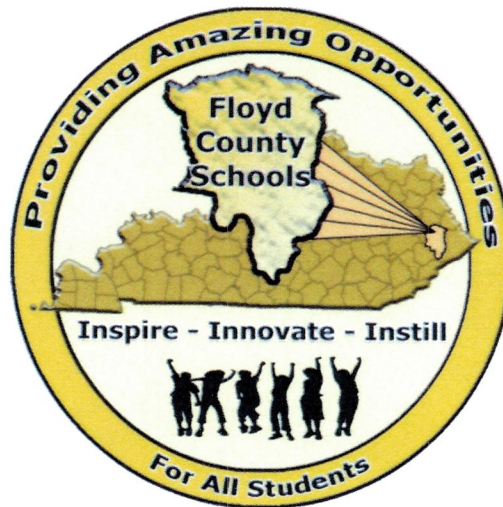
Recommended Action: Approve as presented, yearly approval

Contact Person(s): S. Denise Isaac, Chief Information Officer

  
Director

  
Superintendent

# Technology Integration Handbook



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## Technology Contact

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## Floyd County Technology Integration Initiative

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Excellence is the goal of the Floyd County School System (FCS) and our Technology Integration Initiative to transform teaching and learning to ensure that students learn at higher levels while mastering content standards. The Technology Integration will foster new creative and innovative ways of learning and will be observable through the following student behaviors:

Student Observable Behavior Sample List:

- **Students** demonstrate creativity and innovation using technology
- **Students** engage in inquiry, project, and problem-based learning
- **Students** access resources, information, and research anytime, anywhere
- **Students** become creators of content rather than always consumers
- **Students** demonstrate proper use of information and technology to construct and demonstrate knowledge
- **Students** use technology to think critically and solve problems
- **Students** access digital content for informational and research purposes
- **Students** communicate/collaborate with peers/teachers via electronic communications
- **Students** engage in dynamic presentations of content
- **Students** enhance communication skills through the use of digital information and multimedia content
- **Students** become more aware of the instructional purpose of using technology in learning
- **Students** model digital citizenship

Through our technology integration, students will have the world at their fingertips. It is our belief our integration will enable learning to meet KIDS at all levels while ensuring they are fully prepared for the 21<sup>st</sup> Century and are College/Career ready. FCS strongly believes that technology is a “tool” to enhance instruction and when used appropriately will take our classrooms to new levels of learning for all KIDS.

This Handbook will outline several items that will ensure the success of the integration implementation while ensuring everyone has a clear understanding of the guidelines for our Technology integration.

## Ownership

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FCS retains sole right of possession and ownership of all devices utilized in the technology integration and grants permission to the student to use the device according to the rules and guidelines outlined in this document. Failure to follow the terms of this handbook may result in disciplinary action, including but not limited to confiscation of any devices accessed by the student and revocation of student access to FCS technology. FCS reserves the right to monitor and log the use of its technology and network by users and examine user files and materials as necessary. Additionally, FCS administrative staff has the right to collect and/or inspect the device at any time, including via electronic remote access; and to alter, add, or delete installed software or hardware. **There is no reasonable expectation of privacy while using FCS computers, networks, or technology.**

## Equipment Provided Through TI Program

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All Devices include a laptop, protective case, charger, software, and other miscellaneous items (hereinafter collectively referred to as the "Device"). FCS will retain records of the serial numbers of provided equipment.

## Responsibility for Electronic Data

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It is the sole responsibility of the Student to backup data as necessary. FCS does not accept responsibility for the backup of student material.

## Device Use and Guidelines

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The primary goal of FCS's Technology Integration is to enrich the learning that takes place daily. Technology offers opportunities for teaching and learning in ways that traditional instruction cannot replicate.

Following is a list of guidelines that govern the use of FCS's devices and network resources. **Students must follow these guidelines at all times when using FCS technology.**

*Network Resources* in this document refers to all aspects of the districts owned or leased equipment, including, but not limited to, computers, printers, scanners, and other peripherals, as well as email, internet services, servers, network files and folders, and all other technology-related equipment and services. These guidelines apply to any use of the district's network resources whether this access occurs while on or off-campus.

### ***Students will:***

- Only access the system for educational purposes during school hours (this includes the use of networked printers in the building)
- Use appropriate language and be respectful of others
- Not use devices to engage in harassment, bullying, or cyberbullying of any individual
- Observe and respect license and copyright agreements
- Keep usernames and passwords and personal information confidential (Student names, telephone numbers, and addresses should NEVER be revealed over the system)
- Return the device to FCS at the end of the school year for system updates and re-imaging of the device

### ***Students may not use network resources:***

- For accessing, viewing, downloading, displaying, transmitting, creating, or otherwise possessing or disseminating material that contains inappropriate language or actions, pornography or other sexually explicit material
- To download, stream, or listen to Internet-based music, video, and large image files not for schoolwork, as this slows the performance of the network for all users. FCS will monitor the network for violations
- To access web sites or other content blocked by the district, via codes, proxy anonymizers or any other method
- To conduct any activity that violates district/school rules, FCS Board Policy, or the law
- To access the data or account of another user
- To install any software onto FCS devices unless instructed to do so by your teacher or school technology coordinator. (This does not pertain to normal updates to existing programs on the computer)
- To copy FCS school software (copying school owned software programs is considered theft)
- Attempt to change any FCS network or server configuration or the configuration of the device
- To use any option that "remembers" your password. The easiest way to breach security is to allow someone else to use your login account. Anyone who has access to your account, even for a few minutes, has access to your email, your local data, your server account, and any website to which you saved your password
- Give user name(s) and/or password(s) to anyone other than parents/or legal guardians
- Videotape staff or students without their consent or knowledge and permission
- Forward email is commonly known as "SPAM"
- Instant message or chat during class unless related to academic expectations set forth by the teacher

***Discipline:***

Any student who violates the guidelines and expectations relative to this handbook and technology use will be subject to disciplinary action, up to and including suspension or expulsion from school. If there is evidence that a violation has occurred, then an FCS administrator or designee will decide appropriate consequences per board policy, school policy, and the law.

Student violations may also result in the student's access to FCS technology being limited or revoked, and/or students having their hard drives restored to original settings. The school will cooperate fully with local, state, or federal officials in any investigation related to any illegal activities conducted through the school's electronic system or devices.

## **Monitoring of Devices**

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FCS will do everything possible to keep students safe when using technology. This includes installing content filtering on all devices. It is possible that restricted content may not always be stopped by filtering technology. FCS does not have control of the content posted on the Internet, nor does it have control of incoming email. Sites and content accessible via the Internet may contain material that is defamatory, inaccurate, abusive, obscene, profane, sexually-oriented, threatening, racially offensive, illegal, or otherwise inconsistent with the mission of our school system. FCS expects students to use technology appropriately and follow all policies when using the internet and believes that parent/or legal guardian supervision of technology use outside of school is of critical importance to ensuring student safety and compliance with district policies and federal, state, and local law. Students found in violation of the policy will be subject to disciplinary action under FCS policies.

## **Device Care and Damages**

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***Device Damages***

- If a device is damaged, the school (teacher, administrator) must be notified immediately.
- FCS reserves the right to charge the student and parent/or legal guardian for damages to the device at the rates listed in the chart below when damage occurs due to intentional conduct or gross negligence as determined by FCS administration. Examples of gross negligence include, but are not limited to:
  - a. Leaving equipment unattended and unlocked, this includes damage or loss resulting from an unattended and unlocked device while at school
  - b. Lending equipment to others
  - c. Using equipment in an unsafe environment
  - d. Using the equipment in an unsafe manner
  - e. Not utilizing protective case assigned by the district and device is broken
  - f. Any drop or physical damage of the device
- If the Device's charger is damaged or lost, the student is responsible for purchasing a new charger through the school's Technology Coordinator.
- It is the goal to provide students with a "loaner" device if their device is not working properly or is damaged while their device is being repaired. Students will not be able to take the loaner device home. Students will sign for the "loaner" device each morning the device is in use and the student will be responsible for any damages to the device while in the student's possession that day, before signing back with the teacher.

**Note:** If the student leaves the school district and does not return the device and case, FCS will make a reasonable effort to obtain the device and case. If those efforts are unsuccessful, FCS will treat it like a stolen device and will notify the appropriate authorities.

**Device Damage Fees**

- In the event of damage to the device within the student's control, the student and parent/or legal guardian will be billed according to the following scale:

Keyboard	
First Incident	\$25.00
Second & each time after	\$50.00

Charger (Lost or Damaged)	
First Incident and each time after.	\$50.00

All Other Damages:	
First Incident	\$100.00
Second Incident	\$150.00
Third & Beyond Incident(s)	\$200.00 - \$350.00

**Note:** The administration has the authority to waive the charge if the cause of damage is judged to be beyond the student's control and is viewed as an accident.

Lost or Stolen Devices will be assessed as follows:	
Year 1	\$350.00
Year 2	\$250.00
Year 3	\$150.00
Year 4	\$50.00

**Note:** If a student loses or has a device stolen the corresponding price for the device must be paid in full at the time of the loss. Additionally, if the Administrator determines that the loss is a result of student negligence the student will lose the privilege of taking a device home for 1 "school" year.

**Device Purchase Program**

- The FCS Technology Integration initiative will include a student device purchase program. At the end of the cycle, the student will be able to purchase their device for \$50 if they choose to do so. No device will be able to be purchased before the device has been in the district for four years.

# Student Use of Device

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## ***Student Use in Classrooms***

- It is the goal of FCS for every student grades Pre K - 12, to utilize the technology device to enhance learning and ensure college/career readiness. Therefore, students will be required to take their device to each class each day, unless told differently by the teacher for that specific day.

## ***Bringing the Device to School***

- It is imperative that students bring their device and charging unit to school each day for their learning. Teachers will be designing their lessons and classrooms based on students having access to their devices.
- The device must be kept in the FCS provided carrying case at all times when it is not being used.
- Students who accidentally leave their device at home may have access to a limited number of "Loaner" Devices. (Leaving the device at home may lead to disciplinary action)

## ***Taking the Device Home***

- Students (Pre K -12) who complete the IT training will be allowed to take their assigned device home.
- Students (1 - 12) will be allowed to take their device home on a date determined by the school's administration.
- Students in Kindergarten will not be allowed to take their device home until potential weather is forecasted or health related closure for our area. Devices will then be sent home in their protective sleeve.

## ***Charging of Devices***

- It is the students' responsibility to have their devices charged each day when they come to school. During a normal school day, a typical laptop fully charged can be used the entire day for classes with no additional charging required. If a student comes to class with a device that is not charged, specific consequences may occur for the student.
- Students should establish a routine at home for charging the device. The charging time of the device and responsibility is very similar to the charging of a cell phone.
- It is the student's responsibility to maintain the power adapter and cable. The student or parent/or legal guardian will replace lost or damaged power adapters or cables with the same model. It is recommended that students NOT use the prongs on the charger to wrap the power cord, as, over time, this has proven to damage the cord.

## ***Downloading Programs & Personalizing the Device***

- Only FCS's Technology Department or its authorized representatives may install applications/software on student devices. (This does not pertain to normal updates to existing programs on the computer)
- Stickers and other markings on the outside of the device will not be allowed. Each device is easily identified by a serial number that is placed on the device by FCS and may NOT be removed.

## ***Earbuds/Headphones***

- The use of "earbuds"/headphones in class and/or during the regular day must be authorized by the classroom teacher or administrator.

## ***Student Access to the Internet***

- At school, students will have access to the Internet through the school network. When not at school, students can access the internet on district devices if they have Internet access available to them in their homes or other locations.

- The device's content filter will also be in place when students access the internet outside of the school. Therefore, sites that are "blocked" at school will also be "blocked" in other locations where students access the internet.
- If prohibited or inappropriate web sites or content are accessed by accident, the student should immediately leave the site and report the incident to an adult.
- Students may access the internet on their district devices at any time outside of school. As with any other internet-enabled device, FCS recommends that parents/or legal guardians monitor their student's time and activities on the Internet.

#### ***Outlook Email for Students:***

- All FCS students are issued a Microsoft Outlook email account. Outlook allows students to safely and effectively communicate and collaborate with FCS staff and classmates.

#### ***The effective use of email is:***

- A 21st Century communication tool
- Used in careers and higher education settings
- A way to meet the National Educational Technology Standards (NETS) and the Kentucky Academic Standards for Technology

#### ***Guidelines for Email Usage***

- FCS District email should be used for educational purposes only
- Email transmissions may be monitored by staff at any time to ensure appropriate use. This means that teachers may check students' email
- All -mail and all contents are property of the district
- FCS District email should only be used by the authorized owner of the account
- Students need to protect their passwords

#### ***Unacceptable Use Examples***

- Non-education related forwards (e.g. jokes, chain letters, and images)
- Harassment, profanity, obscenity, racist terms.
- Cyber-bullying, hate mail, discriminatory remarks.
- Email for individual profit or gain, advertisement, or political activities

#### ***Video Capability:***

Each student laptop is equipped with a webcam. This equipment offers students an extraordinary opportunity to experience a 21<sup>st</sup> Century tool and to develop 21<sup>st</sup> Century communication skills.

Examples of Use: Webcams are to be used for educational purposes only, under the direction of a teacher. Examples include:

- Recording videos or taking pictures to include in a project
- Recording a student giving a speech and playing it back for rehearsal and improvement.
- Recording a classroom lesson for playback for improvement (Teacher permission required)

#### ***Gaming:***

Any games must be in support of education.

#### ***Printing at School:***

Any documents that require printing should be printed at school. This means there should be no school-required reason for printing at home. If a student chooses to print schoolwork at home, we suggest using the following options:

- Save the file on a thumb/flash drive and use the home computer to print.
- Email the file to the student's outlook email account. Use the home computer to access the web-based outlook, and print from the home computer.

### ***Safe and Appropriate Use of Technology***

- Students will receive instruction in a safe, ethical, and appropriate use of technology before the issuance of a device. It is important that students are aware of the safe and appropriate use of technology for their protection, and to ensure the safety of others.
- Topics covered in these learning sessions will include information on cyberbullying and cyber-harassment, inappropriate websites, online safety including the use of social networking platforms and chat rooms, plagiarism, and misuse of the equipment. Students will also learn how to respond to inappropriate or unsafe situations that may arise on the Internet. (As always, any situation should be reported to the classroom teacher and/or building principal)
- Students in grades Pre K - 4th will complete Digital Citizenship training through their District Technology Integration Training
- Students in grades 5 - 12 will be required to obtain a digital driver's license. This is a free digital citizenship course that students will complete. Can be accessed at <https://otis.coe.uky.edu/DDL/launch.php>

### ***Device Care***

Students are expected to follow all the specific guidelines listed in this document and take any additional precautions to protect their assigned device.

### ***General Care Reminders***

- Treat this equipment as if it were your property.
  - Do not attempt to remove or change the physical structure of the device, including the keys, screen cover, or plastic casing.
  - Do not remove or interfere with the serial number or any identification placed on the Device.
- Keep the equipment clean. For example, don't eat or drink while using the device.
- Backup your data. Never consider any electronic information safe when stored on only one device.
- Do not put stickers or use any type of markers on the device.
- Removable computer skins/covers purchased must fit the computer properly and cause no damage when removed and must be approved by the building administrator.
- Do NOT charge your device while it is in the bag.
- Close the lid of the computer when it is not in use, to save battery life and protect the screen, and shut the computer off if not used for an extended period.
- NEVER walk from one location to another with an open computer. This is applicable at school and at home.
- The device bag, along with the device and other equipment, must be stored in a safe place (A locker, when locked, is considered a safe place). The device should not be left on the floor where it might be stepped on, or within reach of small children or pets. The Device should not be left in a car or anywhere it might be exposed to extreme temperatures.
- Devices left in bags in unattended classrooms or other areas are considered "unattended" and will be confiscated by faculty or staff as a protection against theft. If confiscated, the student may be subject to disciplinary action.
- Laptops should be stored on the hook or its side standing up. (if available). Never pile things on top of it.
- Never leave it on the bottom of the locker.
- Never leave the locker set to open without entering the combination/key.
- Always use the handle, strap, or two hands to carry the laptop.
- Center the laptop on the desk.
- Follow all directions given by the teacher.

### ***Care of Device at Home***

- Charge the laptop fully each night.
- Use the laptop in a common room of the home.
- Store the laptop on a desk or table - never on the floor!
- Protect the laptop from:
  - Extreme heat or cold
  - Food and drinks
  - Small children
  - Pets

### ***Device Case***

- Each student will be given a protective case that they are required to use to carry their device during the school day and outside of school. This is the only bag that is approved for the device to be placed in. It is important to keep the bag clean and take time to remove any items like paper clips that can scratch the exterior of your device.
  - Kindergarten - 4th Grade will receive a Sleeve
  - 5th - 12th Grade will receive a Bookbag

### ***Keep the Device Away from All Liquids***

- Exposure to liquids will severely damage a device. Water, pop, juices, power drinks, coffee, etc. will all ruin your device completely. Open cans of pop and cups of coffee (even those with lids) are especially dangerous. Do not put a bottle of water/pop/etc. in your backpack with your device even if it is sealed.

### ***Device Problems***

- It is a student's responsibility to maintain a 100% working device at all times.

### ***Troubleshooting and Loaners***

1. The student tries to fix the problem.
2. Always try restarting the laptop as the first step in troubleshooting.
3. If appropriate, students may ask a classmate for help.
4. Students are reminded not to waste too much time troubleshooting so they do not miss too much class time.
5. Students should ask the teacher when appropriate for assistance.
6. If basic repair steps do not work the teacher will contact the student tech team, the SSTIC, or the Technician for assistance.
7. If the problem results in a lengthy period for repair a loaner may be distributed to the student.
8. Students have the responsibility to frequently save all electronic data as FCS assumes no responsibility for lost data/work.

### ***Only One User***

- NEVER allow anyone else to use your device. Parents or guardians may utilize the device for the sole purpose of monitoring a student's use or classwork; personal or business use of a device by a parent or guardian is prohibited. Loss or damage that occurs when anyone else is using it will be the student's responsibility.

### ***Shutting Down the Device***

- Fully shut down the device when it won't be used for an extended duration. Simply putting your device to sleep by closing the lid and not using it for several days can drain the battery to a point where it may no longer accept a charge.



## Parent/Guardian

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FCS makes every effort to equip parents/guardians with the necessary tools and information to ensure the safe use of the laptops in the home. There are several responsibilities assumed by the parent/guardian. These are outlined below.

- Sign the Student/Parent Device Agreement Form: That Parents/ Guardians have read, understand, and agree to the information/terms in the digital conversion handbook, the student pledge, and Floyd County Schools Acceptable Use Policy. Additionally, for students to be allowed to take their laptops home, a student and their parent/guardian must sign the Student/Parent Laptop Agreement. The Parent/guardian must attend the orientation event held at the school which provides background information.
- FCS Electronic Use Policy and Acceptable Use Procedure: Review and Sign

The parent/guardian must agree to monitor student use at home, and away from school. The best way to keep students safe and on-task are to have a parent/guardian present and involved.

- Investigate and apply parental controls
- Develop a set of rules/expectations for laptop use at home. Some websites provide parent/child agreements for you to sign
- Only allow laptop use in common rooms of the home (e.g. living room or kitchen) and not in bedrooms
- Demonstrate a genuine interest in what your student is doing on the laptop. Ask questions and request that they show you his or her work often.

### ***Floyd County Acceptable Use Policy***

Parents/Legal Guardians can view the acceptable use policy by visiting the following link:

[Floyd County School Acceptable Use Policy](#)

### ***Right to Waive 24/7 Access***

- Parents/Legal Guardians have the right to waive their child's 24/7 access to the device by notifying the principal of the school. A record will be kept on file. The student will still have access to the device while at school, but will not be allowed to remove the device from school. A location will be provided to store and charge the device at school.

## Digital Citizenship

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### ***Introduction***

A good digital citizen will experience the advantages of the digital world but they will be identifiable, speak using the appropriate language, judge what is appropriate and ethical behavior, uphold their responsibilities, and be virtuous.

The internet is a little like the proverbial elephant that never forgets. Our digital footprints are not like footprints on the beach, washed away by the next wave of a rising tide. Rather they are like footprints left to dry in the wet concrete of the footpath. They are a permanent reminder of our actions, inactions, and interactions. To navigate and to survive in this dynamic digital world requires some basic rules and guidelines, we call these principles of digital citizenship.

The Digital Citizen will follow six principles of citizenship

1. Respect yourself
2. Protect yourself
3. Respect others
4. Protect others
5. Respect intellectual property
6. Protect intellectual property

The principles of digital citizenship are the same principles that we would want our students to apply to their day to day interactions in the real world. In both the virtual and real worlds, we expect our students to be respectful and protective of themselves, their peers, and others they interact with and the environment. By implementing these principles in the digital world we can draw parallels to our physical world.

### ***Respect yourself***

This is being a virtuous citizen. It is too easy to present yourself in an unflattering or even inappropriate manner. Respecting yourself starts with the name you use to present yourself. How often do we see social networking or twitter names that are suggestive and questionable? Or the images posted to social sites that are provocative, revealing, or less than flattering? Increasingly employers are searching social networking sites to research potential employees. How do your profile, online name, and image portray you as a potential member of a professional organization?

#### ***Recommendation:***

- Select names and images that portray you in a positive light.
- Do not post any information that you would not want your mother, grandparent, or employer to see.
- Leave blank questions about your relationships, experimentation with drugs, and sexual activities or preferences.
- Apply ethical approaches like:
  - I will show respect for myself through my actions.
  - I will select online names that are appropriate,
  - I will consider the information and images that I post online.
  - I will consider what personal information about my life, experiences, experimentation, or relationships I post.
  - I will not be obscene.

### ***Protect yourself***

Be careful what information you share online and who you share that information with. While the internet can be an incredible learning tool, always remember that like in the real world the virtual world has people that do not always make the right decisions.

#### ***Recommendations:***

- Think about the information you are posting, what will it mean to an outsider viewing it? What will it mean without the prior information your audience (friends, blog subscribers, twitter followers, etc.) may have?
- Don't publish a schedule of your activities
- Set the privacy settings on your tools to control access to your updates, posts, or profile.
- Be sure of the facts you posted.
- Use ethical approaches like:
  - I will ensure that the information, images, and materials I post online will not put me at risk.
  - I will not publish my details, contact details, or a schedule of my activities.
  - I will report any attacks or inappropriate behavior directed at me.
  - I will protect passwords, accounts, and resources.

### ***Respect others***

As a responsible cyber or digital citizen, we model respect for other people. In the past, gossip was limited to your immediate field of friends and acquaintances, but with the advent and uptake of digital technologies, the potential audience for gossip and innuendo is global. Flaming is the term used to describe a post or thread that attacks a person and this is very disrespectful and not a practice of a good digital citizen.

#### ***Recommendations:***

- If you have nothing nice to say, then say nothing.
- Don't forward it, don't visit it, don't condone it.
- Teach and talk about real relationships.

- Use statements and ethical guidelines like:
  - I will show respect to others.
  - I will not use electronic mediums to bully, harass, or stalk other people.
  - I will show respect for other people in my choice of websites,
  - I will not abuse my rights of access and I will not enter other people's private spaces or areas.

### ***Protect others***

Every social networking site, an instant messaging tool, chat room, wiki, blog, and social media has a report of abuse contact. USE IT! We can protect others by not tolerating and reporting behavior that is inappropriate or unacceptable. Don't forward emails that are derogatory, delete them. By sitting quietly as a person is cyberbullied in a threaded discussion, we encourage the attacker and validate their position. You cannot sit by and let such behavior continue.

#### ***Recommendations:***

- Have a policy of zero tolerance for unacceptable behavior, Report abuse.
- Don't forward or pass on unacceptable material – delete it. Stop the trail in your trash can.
- Consider the other person's feelings and act accordingly.
- Use statements like this - I will protect others by reporting abuse, not forwarding inappropriate materials or communications; and not visiting sites that are degrading, pornographic, racist, or inappropriate.

### ***Respect Intellectual Property***

There is so much information out there, there are so many amazing materials to share and so many people have given their precious time for free. This facet of the digital citizen is to respect or honor Intellectual property. Honoring intellectual property is not hard and requires little more than common courtesy, like:

- Citing the source of images and information
- Giving credit when credit is due.
- Linking to websites rather than downloading and reposting

#### ***Recommendation:***

- I will suitably cite any use of websites, books, media, etc.
- I will validate the information.
- I will use and abide by the fair use rules.

### ***Protect Intellectual Property***

The term piracy conjures up ideas of sailing ships, eye patches, and swashbuckling adventure. However, the reality of piracy is simple;

PIRACY IS THEFT!

No matter what face you put on it, no matter whether it is software, music, or movies PIRACY is THEFT! Most of us would never consider walking into a video store and stealing a DVD and yet we use programs that do exactly that.

#### ***Recommendations:***

- I will request to use the software and media others produce.
- I will use free and open-source alternatives rather than pirating software.
- I will purchase, license, and register all software.
- I will purchase my music and media, and refrain from distributing these in a manner that violates their licenses.
- I will act with integrity.

The district will annually conduct a summative evaluation of the digital conversion implementation. The evaluation will be conducted by a committee of teachers/principals involved in the implementation and will include results from Surveys, data to include district/classroom/ school assessments (formative/summative), and state assessment results. An evaluation report will be developed and presented to the Floyd County Board of Education on an annual basis addressing the district’s essential question. How does the use of the resource improve student achievement measurably over time?

Components of the evaluation will include but not be limited to:

- Utilization of the wireless networks by staff, students and guest
- Inventory of devices available for student use
- Annual staff survey on DC initiative
- Number of staff participating in technology training offered by the district
- Review of progress toward successful implementation of the curriculum outlined in this Handbook by grade level
- Number and enrollment within blended and online coursework
- Classroom, school, district, and state data on formative/summative student achievement to include gap population.



# Kentucky Academic Standards (KAS) for Technology



Kentucky Academic Standards (KAS) for Technology

## Performance Indicator Progression Chart

Concept and Competency	Standard	Learning Priority	Standard Identifier	Grades K-2 (P) By the end of Grade 2, students will be able to...	Grades 3-5 (I) By the end of Grade 5, students will be able to...	Grades 6-8 (M) By the end of Grade 8, students will be able to...	Grades 9-12 (H) By the end of Grade 12, students will be able to...
<b>Empowered Learner</b> Students use technology to take an active role in their learning.	<b>1. Skill / Concept Development</b> Leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.	A. Articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.	EL1.A.1	Set personal learning goals and use digital tools to achieve those goals, with guidance and support (ex.: increase reading fluency by recording and reflecting upon student reading).	Set personal learning goals and self-select digital tools to support accomplishing the goals.	Set personal learning goals and select and manage digital tools that will best support individualized learning (ex.: use collaborative documents to revise and reflect on the writing process).	Set and articulate personal learning goals and develop strategies leveraging digital tools to achieve those goals.
			EL1.A.2	Reflect on the learning process to improve learning over time, with guidance and support (ex.: using digital writing portfolio and reflection log/journal).	Reflect on and revise the learning process as needed to improve learning over time (ex.: using digital writing portfolio and reflection log/journal).	Reflect on successes, areas of improvement, and make necessary revisions to improve the learning over time (ex.: using digital writing portfolio and reflection log/journal).	Reflect on successes, areas of improvement, and make necessary revisions to improve the learning over time and adjust for future learning.
		B. Build networks and customize their learning environments in ways that support the learning process.	EL1.B.1	Participate in teacher-led explorations utilizing digital tools to expand learning spaces beyond the classroom (ex.: expert video channels, video conferencing with professionals, authors' blogs).	Participate in explorations that support identifying and building a network (ex.: expert video channels, video conferencing with professionals, authors' blogs) unique to one's own interests/needs to support the learning process.	Collaborate with a network of self-selected global partners (ex.: students, teachers, professionals, and the global community) to customize and support the individual learning process.	Initiate collaboration with a network of global partners (ex.: students, teachers, professionals, or the global community) to support and enhance the learning process.
			EL1.C.1	Recognize and use technology to seek feedback as a valued component of the learning process.	Seek feedback that informs and improves learning (ex.: students seek feedback from teachers and peers during the digital writing process).	Seek feedback from an authentic audience and from features embedded in digital tools (ex.: share documents with teachers and peers asking for feedback on writing).	Seek feedback independently through the use of technology (ex.: use video chat to share and reflect upon a learning process or product).
		C. Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.	EL1.C.2	Use feedback to improve the demonstration of learning (ex.: student uses interactive software with immediate feedback to guide their performance).	Use feedback to improve products that demonstrate learning in a variety of ways.	Use feedback to analyze data and make learning adjustments based on the feedback.	Use feedback to effectively demonstrate learning in a variety of ways.
			EL1.D.1	Explore a variety of digital tools and discover how they work based on fundamental concepts of technology operations (ex.: a student learns how to turn the audio up/down, how to open, save, close files).	Explore and select digital tools that support learning in different contexts (ex.: a student chooses a tool to collect data and then creates a graphical display of the data using a digital tool of their choice).	Understand the fundamental use of technology tools to consider how to use technology to promote creativity, communication, collaboration, and critical thinking.	Understand the fundamental use of technology tools to embrace creativity, communication, collaboration, and critical thinking.
		D. Understanding the fundamental concepts of how to use technology (technology operations).	EL1.D.2	Transfer conceptual knowledge of technology operations in multiple contexts, with guidance and support (ex.: A student has learned to use a smartphone, and they use what they know about smartphones to use a different device).	Transfer conceptual knowledge of technology operations to multiple contexts.	Choose and troubleshoot technology tools to suit purpose.	Choose and effectively troubleshoot technology tools to suit purpose.
			EL1.D.3	Transfer knowledge of fundamental concepts of technology operations to troubleshoot basic technology operations.	Transfer knowledge of fundamental concepts of technology operations to troubleshoot basic technology operations.	Transfer the knowledge of existing technology to explore new technologies.	Transfer and extend the knowledge of existing technology to explore new technologies.
			EL2.A.1	Use age-appropriate digital resources to produce and publish information.	Identify age-appropriate digital tools to produce and publish information for an identified target audience.	Evaluate effectiveness of different digital tools to communicate information with multiple audiences.	Select appropriate digital resources to develop, implement and/or evaluate communication with an authentic audience.
		2. Application Apply the fundamental concepts of technology operations and demonstrate the ability to choose, use, and troubleshoot current technologies.	EL2.A.2	Demonstrate basic ability to communicate a message with digital input strategies (ex.: typing/keyboarding, voice to text, video or audio, images).	Demonstrate efficient ability to communicate a message with digital input strategies (ex.: typing/keyboarding, voice to text, video or audio).	Choose functions and operations appropriate to their task and purpose.	Choose efficient functions and concepts appropriate to their task and purpose.
			EL2.B.1	Choose technology appropriate to task and purpose, with guidance and support.	Choose technology appropriate to their task and purpose.	Choose functions and operations appropriate to their task and purpose.	Choose efficient functions and concepts appropriate to their task and purpose.
			EL2.B.2				Apply an understanding of devices to troubleshoot current technology and adjust for future events.
		C. Transfer knowledge to emerging technology.	EL2.C.1	Apply and adapt knowledge of existing technology to the substitution-based use of new technologies.	Apply and adapt knowledge of existing technology to the augmentative use of new technologies.	Apply and adapt knowledge of existing technology to the modification-based use of new technologies.	Apply and adapt knowledge of existing technology to the innovative redefinition-based use of new technologies.
<b>Responsible Citizen</b> Students use technology in a safe, positive, and proactive way.	<b>1. Skill / Concept Development</b> Recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world; act and model in ways that are safe, legal and ethical.	A. Cultivate and manage your digital identity and reputation, and be aware of the permanence of your actions in the digital world.	DC1.A.1	Understand what it means to be a positive influence offline and how that could relate to being positive online.	Model positive behaviors in online communications at school and understand how to apply those behaviors to online activities outside of school.	Recognize behaviors, habits, and actions that create, maintain, and influence both positive and negative digital identities, reputations, and footprints in the digital world.	Actively develop and maintain a positive, authentic digital identity and presence.
			DC1.A.2	Show awareness that when something is put on the internet (websites, social media, apps) it can leave a trail online (digital footprint).	Show awareness and understand they are creating a digital footprint, and can identify positive and negative online activity.	Build awareness of public and permanent nature of online actions and the possible present and future consequences in personal, academic, and professional lives.	Comprehend the permanence of actions in the digital world and their potential visibility to future employers, colleagues and social relations.
		B. Engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.	DC1.B.1	Choose appropriate websites, and understand to seek help from a trusted adult when faced with problems online related to safety.	Collaborate online with peers and educators in a positive manner, and begin to recognize online behaviors can have positive or negative consequences.	Recognize and demonstrate responsible behaviors that are safe, ethical, and legal across a variety of devices, platforms, and settings while considering possible consequences for themselves and/or others.	Make responsible decisions based on ethical standards, positive social behavior and the safety of oneself and others when interacting and collaborating in a digital world.
			DC1.B.2	Understand that what is online has positive and negative consequences, and relate the understanding to behaviors offline.	Understand that decisions and behaviors online can affect others in both negative and positive and hurtful and helpful ways.	Understand how to be respectful to others online while interacting, communicating, and collaborating and know strategies in order to avoid and/or combat cyberbullying.	Understand the mental and legal ramifications of cyber bullying and harassment; employ strategies to avoid and/or combat cyberbullying and harassment.
		C. Manage their personal data to maintain digital	DC1.C.1	Understand usernames and passwords, and understand why these are not shared with others.	Create and know usernames and passwords, and understand why these and other personal information are not shared with others online and offline.	Distinguish between information that is public and personal/private and develop and utilize strategies to secure and protect personal/private data and user accounts.	Think critically about the information shared in an online environment in order to keep sensitive personal information safe and secure.



Digital Citizen - Students manage their digital identity in a safe manner.		privacy and security and are aware of data-collection technology used to track their navigation online.	DC1.C.2	Navigate to trusted websites and know how to search for websites in a safe manner with awareness that not all websites are safe.	Search websites understanding that some sites are not safe without adult permission.	Understand that data-collection technology is used to track online navigation and recognize and avoid online scams and phishing.	Comprehend the presence and ramifications of online data collection and how it is used to track online navigation and influence consumer decisions.	
	2. Application Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.	A. Use information, media and digital resources in a responsible manner.	DC2.A.1	Identify acceptable use of internet and other digital resources.	Demonstrate acceptable use of the internet and identify acceptable use of social media and other digital media.	Demonstrate acceptable use of internet, information, media and digital resources, including social media according to user agreements, policies, and laws.	Understand the need for, and comply with, acceptable user policies and agreements.	
			DC2.A.2				Make responsible decisions in the use of information, media, social media and other digital resources in accordance with acceptable user policies and agreements.	
		B. Respect intellectual property rights.	DC2.B.1	Recognize that everyone has different ideas in creating their own work (intellectual property).	Value others' intellectual property by encouraging others.	Recognize and respect different intellectual property classifications, including those that are copyrighted, subject to fair use, public domain properties, and/or have creative commons licenses.	Respect the importance of intellectual property in encouraging thought, design innovation and/or creation.	
			DC2.B.2	Show respect for others' intellectual property with positive words.	Give positive and constructive feedback on others' intellectual property with respect.		Use, share and/or interact with intellectual property in accordance with the rights given by the owner of the intellectual property.	
			DC2.B.3	Understand not to copy someone else's work (intellectual property).				
			DC2.B.4	Understand that someone else's creations found on the internet or shared in person, cannot be used without permission, and the creator should be given credit.				
		C. Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.	DC2.C.1		Use others' creations (intellectual property) with permission (public domain, creative commons, or copyright owner's permission).	Recognize and seek permission to use the intellectual property of others appropriately.	Apply understanding of "fair use" and copyright laws when sharing the intellectual property of others, as well as, when producing new intellectual property.	
			DC2.C.2		Create their own intellectual property in digital projects.	Use and share the intellectual property of others with proper citation and attribution elements.	Seek permission and properly cite the usage of the intellectual property of others.	
	Knowledge Constructor - Students use various digital tools to find information and make meaning.	1. Skill / Concept Development Students critically curate a variety of resources using digital tools to construct knowledge.	A. Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.	KC1.A.1	Use basic keyword searches to locate information to build deeper understanding of a subject.	Filter searches to gather specific information on a subject or research topic (ex.: searching "food sources for Beluga whales" instead of searching "whales" or "Beluga whales").	Demonstrate effective digital search techniques (ex.: filtering searches using advanced settings/tools, keyword/terms, choices, or phrases) to locate information or other resources to gather specific information on a subject or research topic.	Utilize a variety of digital resources effectively and safely by applying a variety of search strategies (ex.: filtering searches, advanced settings/tools, file types, database/source selection).
KC1.A.2				Apply print reference knowledge and strategies to find and locate information in digital resources.	Use a variety of digital reference resources (ex.: digital encyclopedia, digital atlases/maps) to locate information related to a research topic.	Practice research strategies that outline a process for locating information digitally (ex.: tools and effective search techniques).	Plan and use multiple research strategies to locate information from digital resources for a variety of purposes.	
KC1.A.3				Satisfy curiosity by exploring answers to questions with digital resources.				
B. Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.			KC1.B.1	Classify websites into general categories to guide relevance of search results (ex.: entertainment/games, reference, learning).	Identify criteria to analyze information presented in a digital resource to determine its accuracy, perspective, credibility, and relevance.	Select a method, tool, or strategy to evaluate source(s) for credibility, relevance, authority, accuracy, and perspective.	Evaluate digital sources for accuracy of information, compare and consider the perspectives of the sources, determine usefulness, and assess the credibility of the sources.	
			KC1.B.2	Compare information on the same topic across multiple digital resources.	Explore different media types (ex.: infographics, videos, graphs, text) and how they might influence an audience.	Analyze digital information, media, data, and materials for credibility, relevance, authority, accuracy, and perspective.		
			KC1.B.3		Compare information presented across different domain extensions (ex.: .com, .net, .gov, .edu) to help evaluate accuracy, perspective, credibility, and relevance of information.			
C. Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.			KC1.C.1	Use digital organizers to create collections of artifacts (ex.: bookmarks, hyperlinks, sites).	Collect information (ex.: images, diagrams, maps, graphs, infographics, videos, animations) using digital tools from resources to clarify and add to knowledge of a topic.	Combine various tools (ex.: spreadsheet, database, saved files) and methods (ex.: concept mapping, flow charting and outlining software) to classify information, observations, or experiments digitally.	Use multiple digital tools to select, organize, and communicate information from digital sources.	
			KC1.C.2	Organize gathered artifacts into general themed collections (ex.: Famous African-Americans, favorite cartoon characters, pictures of bridges).	Organize gathered artifacts into themed collections with subcategories (ex.: Famous African-Americans: Scientists, Politicians, Athletes; Favorite Cartoon Characters: Disney, Nickelodeon, Looney Tunes).	Compile information from digital resources (ex.: search engines, online periodical databases, virtual library/online catalogs, interactive video conferencing).	Utilize digital tools to communicate information in real world applications, to address or solve a problem, or to make meaningful connections.	
2. Application Produce creative artifacts and make meaningful learning experiences from curated knowledge for themselves and others.			A. Produce creative artifacts.	KC2.A.1	Use digital tools to create artifacts from information found in various digital resources.	Use digital tools to create artifacts that connect similar information found in various digital resources.	Demonstrate the ability to create new ideas/concepts or products with digital tools.	Choose and use digital tools to create products that exhibit choice and creativity.
				KC2.A.2				Create products independently and collaboratively that incorporate creative elements, and communicate to multiple audiences.
		B. Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.	KC2.B.1	Use a variety of digital resources (ex.: website, video clip, photos) to explore and report on real world issues.	Use a variety of digital resources (ex.: website, video clip, photos) to explore and collaborate with others on real-world issues.	Build knowledge by generating and testing solutions for exploring real world issues using a variety of technology (ex.: data collection tools, models, videos, podcast, simulations, forms).	Select and use digital tools to create products that demonstrate meaningful connections or conclusions.	
			KC2.B.2				Create products independently and collaboratively that explore real-world issues and problems and engage in discussion around current issues.	
1. Skill / Concept Development		A. Find authentic real-world problems in local and global contexts.	ID1.A.1	Use technology to identify a problem in the school or home environment with guidance and support.	Identify and describe problems or challenges present in their community then analyze the conditions that make it a problem.	Collaborate with others in and out of the classroom using digital tools to identify real-world problems and propose a solution that affects the local and global community.	Use a variety of technologies to independently identify real-world problems in the local and global community.	
			ID1.A.2	Describe the problem, using technology, and explain why it is problematic.				



<b>Innovative Designer</b> - Students use a variety of technologies to design and create.	Use a variety of technologies to identify and solve authentic real-world problems.	B. Exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.	ID1.B.1	Demonstrate perseverance when working to complete a challenging task.	Demonstrate perseverance when working with authentic, open-ended problems.	Demonstrate the ability to investigate and make sense of open-ended problems using digital tools and persevere in solving them.	Use a variety of technologies to independently demonstrate perseverance when dealing with ambiguous and open-ended problems.
	2. Application Use a variety of technologies within a design process to create new, useful and imaginative solutions.	A. Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.	ID2.A.1	Use a design process (ex. creative thinking spiral) to ask questions, suggest solutions, test ideas to solve problems, and share their learning, with guidance and support.	Explore and practice how a deliberate design process (ex. design thinking) works to generate ideas, consider solutions, test theories, plan to solve a problem, or create innovative products to share with others.	Explore and choose appropriate processes and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.	Self-select and use a variety of digital tools within a deliberate process for generating ideas, researching, and testing ideas for solving problems or creating original products that demonstrate understanding.
		B. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.	ID2.B.1	Use a variety of age-appropriate digital tools to design something, with guidance and support.	Use a variety of digital tools to plan and manage a design process, with consideration to design constraints and risks.	Investigate and use meaningful digital tools to plan and manage a design process that considers design constraints and calculated risks.	Self-select and use appropriate digital tools to plan and manage work and create original products that take into consideration project constraints, obstacles and outcomes.
		C. Develop, test and refine prototypes as part of a cyclical design process.	ID2.C.1	Use a design process to develop ideas or creations, test their design, and redesign if necessary.	Engage in a cyclical design process to develop and test prototypes; reflect on the role that trial and error plays in the process.	Create, develop and test prototypes; understand and appreciate that failures are opportunities for growth and improvement.	Select and use a variety of digital tools to aid in working collaboratively or independently to create, test and refine prototypes, drafts and concepts based on self-initiated feedback and reflection in design cycles.
<b>Computational Thinker</b> - Students understand sequences and use them to develop solutions to problems.	1. Skill / Concept Development Develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.	A. Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.	CT1.A.1	Identify a problem and choose the appropriate digital tools to explore and find solutions to the problem through the use of a step-by-step plan, with guidance and support.	Plan and implement a design process in which they explore solutions to a problem and use digital tools to analyze data, create models, and represent collected data (ex.: spreadsheets, graphs, charts, tables, presentations, infographics) in a way that can be shared with others, with guidance.	Ask questions, gather data, create/observe abstract models, and think of different processes while finding solutions to real-world problems.	Precisely define a problem and develop a solution using digital tools, conducting data analysis, abstract models, and algorithmic thinking.
		B. Collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.	CT1.B.1	Utilize an age-appropriate digital tool to collect, organize, and represent data (ex.: online surveys, spreadsheets, graphs, charts, etc.); students will use this data to look for similarities and identify patterns and categories within the data set (ex.: simple data mining), with guidance and support.	Select and utilize an age-appropriate digital tool to represent data (ex.: spreadsheets, digital graphs/charts), with guidance and support from adults.	Solve problems and make decisions by collecting data or identifying relevant data sets, using digital tools (ex.: sheets, surveys) to analyze the data, and represent their findings through various ways.	Use digital tool(s) to effectively collect, organize, and manipulate data to test, verify, and present possible solutions to a problem.
			CT1.B.2		Use data to discuss findings and share conclusions with others (ex.: presentation apps/websites).		
		C. Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.	CT1.C.1	Break a problem into smaller parts, identify key information, and use age-appropriate digital tools to help with problem solving (ex.: online whiteboard, online mindmapping tools, digital outline), with guidance and support.	Break a problem into smaller parts, identify patterns and key information, and use age-appropriate digital tools to brainstorm a problem solving plan (ex.: online whiteboard, online mindmapping tools, digital outline) either collaboratively or independently.	Break problems into parts, extract key information, and develop descriptive models to understand complex systems or lead problem solving tasks.	Evaluate the problem-solving process to deconstruct data and information to develop effective solutions to real-world problems.
		D. Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.	CT1.D.1	Define and give examples of automation (ex.: thermostat controls temperature, buttons pressed on toys make various sounds).	Complete a coding task with coded actions (ex.: html, block-based coding, python) either collaboratively or independently.	Use digital tools to collect data, conduct analysis, and discuss findings or possible solutions.	Demonstrate their understanding of automation and logic to develop a process to create and verify automated solutions.
			CT1.D.2	Complete a simple coding task with at least 3-5 coded actions (ex.: html, block-based coding, python), with guidance and support.			
	2. Application Apply strategies for understanding and solving problems by using technological methods to develop and test solutions.	A. Use resources to collect, analyze, and represent data.	CT2.A.1	Use digital tools to ask questions and digitally collect data, with guidance and support.	Use digital tools to ask questions and digitally collect data.	Use digital tools to ask questions to an audience and digitally collect data, and analyze the findings.	Use digital tools to collect relevant data, conduct analysis, and prepare data for presentation to facilitate problem-solving and decision-making.
		B. Deconstruct components to understand systems and facilitate problem-solving.	CT2.B.1	Use digital tools to identify patterns in order to solve problems, with guidance and support.	Use digital tools to find patterns in order to solve complex problems.	Use technology-assisted methods to break problems down into smaller, more manageable parts by finding patterns or other methods of decomposition.	Use technology-assisted methods to more easily identify key information by breaking down data to facilitate problem-solving.
		C. Create and test automated solutions.	CT2.C.1	Use digital tools to identify and create algorithms, with guidance and support.	Use digital tools to identify and create algorithms.	Use algorithm design to develop step-by-step instructions for solving a problem.	Use digital tools and algorithmic thinking to develop automated systems to test solutions.



<b>Creative Communicator</b> - Students communicate clearly and express themselves with a variety of digital tools.	<b>1. Skill / Concept Development</b> Communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals, audience and task.	A. Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.	CC1.A.1	Introduce and use age appropriate digital tools (ex.: art creation programs, video production, photography, presentations, video media, green screen, stop motion animation) for producing new creations or published communications using appropriate digital etiquette with guidance and support.	Evaluate and utilize the features of a variety of digital tools (ex.: including, but not limited to: adding video/audio, digital collaboration tools, tools affecting the aesthetics of the piece, as well as methods for sharing/publishing) for producing new creations or communications with teacher support, following appropriate digital etiquette.	Choose from available platforms and tools to meet the designated objectives of their creation or communication.	Evaluate and determine appropriate platforms and digital tools to create or share digital content with an authentic audience for a desired purpose.
		B. Create original works or responsibly repurpose and/or remix digital resources into new creations.	CC1.B.1	Use age appropriate digital tools to create original and remixed work, with respect to intellectual property with guidance and support.	Learn and apply strategies to responsibly remix creative work, respecting digital citizenship (copyright), both collaboratively and independently.	Create original works, or repurpose/remix digital resources into new creations, while demonstrating an understanding of digital citizenship (ex.: intellectual property rights or copyrights).	Create work for an authentic audience and desired purpose that reflects a responsible repurposing of digital media or resources.
		C. Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.	CC1.C.1	Observe and participate in the communication of ideas using a variety of digital tools (ex.: video reflections, interactive notebooks, audio recording, as well as visual representation) with guidance and support.	Create digital artifacts (ex.: presentations, data collection, models, audio/video, websites, and digital art) to display knowledge and communicate ideas clearly to a variety of audiences, both collaboratively and independently.	Create or incorporate digital content to communicate complex ideas clearly and effectively to a variety of audiences.	Analyze and communicate complex ideas, data, or solutions to an authentic audience for a desired purpose using digital tools.
	<b>2. Application</b> Publish and present content customized for their audience(s), purpose, and task.	A. Publish and present content that customizes the message and medium for their intended audiences.	CC2.A.1	Explore a variety of digital tools (ex.: drawing/ art programs, video production, green screen, digital art) to create and communicate an idea to a variety of audiences with guidance and support.	Utilize digital tools to create, share, communicate, and publish work effectively (ex.: video audio creation, social media, spreadsheets, blogs, presentation platforms, word processing, and digital art platforms).	Publish or present original content to a predetermined audience that appropriately customizes the message and medium.	Present an idea or creative work that expresses ideas or content that is published for a range of authentic audiences outside of the classroom.
			CC2.A.2	Discuss different audiences and how presentations can change based on audience.	Identify the intended audience and select appropriate platform (medium) when creating digital pieces, presenting, and collaborating to communicate ideas to the audience.		
	<b>Global Collaborator</b> - Students use digital tools to connect with learners inside and outside of their classroom.	<b>1. Skill / Concept Development</b> Use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.	A. Use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.	GC1.A.1	Use digital tools and resources (ex.: digital resources, virtual field trips, virtual reality, video media, and social media), to understand the similarities and differences of others in school, community, and beyond with guidance and support.	Use digital tools and resources (ex.: presentations, videos, or various digital media platforms) to connect and collaborate with authentic audiences from a variety of backgrounds and cultures to enrich learning experiences.	Use digital tools and resources to connect and collaborate with authentic audiences from various backgrounds and cultures to broaden mutual understanding and learning, while using appropriate digital citizenship skills.
B. Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.			GC1.B.1	Use digital tools to collaborate with team members in a digital workspace with guidance and support.	Use digital tools to learn how to collaborate with team members in a digital workspace (ex.: sharing and respecting digital work within a team workspace, assuming team roles and working together to create video/ green screen production, stop-motion animation, and various other forms of digital creations). Use digital tools and take on a variety of roles to contribute to team projects with guidance and support.	Select and use digital tools in diverse collaborative teams within the classroom, assuming specific roles, responsibilities, and perspectives other than your own, to contribute effectively toward a common goal.	Use digital tools to contribute to a project team, determine their role and responsibility within the group and work toward a common goal or a solution to a problem.
C. Contribute to the exchange of ideas within and beyond the learning community.			GC1.C.1	Respect the interest of others by collaborating to share ideas, experiences, and opinions (ex.: virtual collaboration, presentation, and discussion boards) with guidance and support.	Use a variety of digital resources to collaborate with mutual respect (ex.: video conferencing, commenting tools, slide decks, and documents).	Select and use digital tools in diverse collaborative teams outside the classroom, assuming specific roles, responsibilities, and perspectives other than their own, to contribute effectively toward a common goal.	Select digital tools to share and exchange interests, ideas and experiences with others from within and beyond the local learning community.
<b>2. Application</b> Use digital tools to connect with a global network of learners and engage with issues that impact local and global communities.		A. Use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.	GC2.A.1	Use digital tools to collaborate with others to examine problems from school, community, and beyond with guidance and support.	Use digital tools to collaborate with peers, experts, and community members to examine problems from multiple viewpoints (ex.: video/voice conferencing).	Use collaborative technologies to connect with others - including peers, experts, and community members - to learn about issues and problems or to gain diverse local and global perspectives.	Use collaborative technologies to work with others (peers, experts, community members) to gain knowledge about issues through various perspectives and opinions and to find solutions for social change.
		B. Explore local and global issues and use collaborative technologies to work with others to investigate solutions.	GC2.B.1	Use digital tools to collaborate with school, community, and beyond to solve problems with guidance and support.	Collaborate digitally with others to understand multiple perspectives while exploring both local and global issues to solve problems with guidance and support (ex.: project-based learning and community problem solving).	Use collaborative technologies and assume roles within digital creations while maintaining digital citizenship within the team digital workspace to investigate and develop solutions to local and global issues.	Explore and analyze local and global issues and use collaborative digital tools to investigate, develop a plan and recommend solutions.



# Kentucky Academic Standards (KAS) for Computer Science



## Kentucky Academic Standards (KAS) for Computer Science Progression Chart

Concept	Subconcept	Grades K-5 By the end of Grade 5, students will be able to:	Grades 6-8 By the end of Grade 8, students will be able to:	Grades 9-12 By the end of Grade 12, students will be able to:
Networks & the Internet	Network Communication & Organization	<b>E-NI-01:</b> Understand the basic components of how networks operate to protect physical and digital information.	<b>M-NI-01:</b> Model how different sets of rules (protocols) are used to transmit different types of data across networks and the Internet.	<b>H-NI-01:</b> Evaluate the scalability and reliability of networks, by describing the relationship between routers, switches, end devices, topology, and addressing.
Networks & the Internet	Network Communication & Organization	-	-	<b>H-NI-04:</b> Describe the issues that impact network functionality (e.g., bandwidth, load, delay, topology). *
Networks & the Internet	Cybersecurity	<b>E-NI-02:</b> Model how information is broken down into smaller pieces (data packets), transmitted over various paths (physical and/or wireless), and reassembled at the destination	<b>M-NI-02:</b> Model how information is disguised using different methods of encryption to secure it during transmission from one point to another.	<b>H-NI-02:</b> Give examples to illustrate how sensitive data can be affected by viruses, malware and other attacks.
Networks & the Internet	Cybersecurity	Not introduced at this grade band.	<b>M-NI-03:</b> Explain how physical and digital security practices and measures proactively address the threat of breaches to personal and private data.	<b>H-NI-03:</b> Recommend security measures to address various scenarios based on factors such as usability, efficiency, feasibility, and ethical impacts.
Networks & the Internet	Cybersecurity	-	-	<b>H-NI-05:</b> Compare ways software developers protect devices and information from unauthorized access. *
Data & Analysis	Storage	<b>E-DA-01:</b> Appropriately store and modify digital files.	<b>M-DA-01:</b> Store data using multiple encoding methods.	<b>H-DA-01:</b> Evaluate the tradeoffs in how data elements are organized and where data is stored.*



# Kentucky Academic Standards (KAS) for Computer Science

## Progression Chart

Concept	Subconcept	Grades K-5 By the end of Grade 5, students will be able to:	Grades 6-8 By the end of Grade 8, students will be able to:	Grades 9-12 By the end of Grade 12, students will be able to:
Data & Analysis	Collection, Visualization & Transformation	<b>E-DA-02:</b> Collect and visually display data using appropriate applications.	<b>M-DA-02:</b> Collect data using computational tools and transform the data to make it more useful and reliable.	<b>H-DA-02:</b> Collect data using appropriate data collection tools and techniques to support a claim or to communicate information.
Data & Analysis	Collection, Visualization & Transformation	-	-	<b>H-DA-03:</b> Understand and design database structures to optimize search and retrieval.*
Data & Analysis	Collection, Visualization & Transformation	-	-	<b>H-DA-04:</b> Explain the privacy concerns related to the collection and generation of data.
Data & Analysis	Collection, Visualization & Transformation	-	-	<b>H-DA-05:</b> Use data analysis tools (e.g. formulas and other software data / statistical tools) to process and transform the data to make it more useful and reliable.
Data & Analysis	Collection, Visualization & Transformation	-	-	<b>H-DA-08:</b> Create interactive data visualizations using software tools to help others better understand real-world phenomena.
Data & Analysis	Inference & Models	<b>E-DA-03:</b> Analyze data for trends and relationships	<b>M-DA-03:</b> Refine computational models based on the data they have generated.	<b>H-DA-06:</b> Use data analysis tools and techniques to identify patterns and analyze data represented in complex systems.
Data & Analysis	Inference & Models	-	-	<b>H-DA-07:</b> Create computational models that represent the relationships among different elements of data.



# Progression Chart

Concept	Subconcept	Grades K-5 By the end of Grade 5, students will be able to:	Grades 6-8 By the end of Grade 8, students will be able to:	Grades 9-12 By the end of Grade 12, students will be able to:
Data & Analysis	Inference & Models	-	-	<b>H-DA-09:</b> Evaluate the ability of models and simulations to test and support the refinement of hypotheses.*
Algorithms & Programming	Algorithms	<b>E-AP-01:</b> Create, follow, compare and refine algorithms for a task.	<b>M-AP-04:</b> Create flowcharts and/or pseudocode to address complex problems as algorithms.	<b>H-AP-07:</b> Create prototypes that use algorithms to solve computational problems by leveraging prior student knowledge and personal interests.
Algorithms & Programming	Algorithms	-	-	<b>H-AP-13:</b> Use and adapt classic algorithms to solve computational problems.*
Algorithms & Programming	Algorithms	-	-	<b>H-AP-14:</b> Evaluate algorithms in terms of their efficiency, correctness, and clarity.*
Algorithms & Programming	Algorithms	-	-	<b>H-AP-16:</b> Illustrate the flow of execution of a recursive algorithm.*
Algorithms & Programming	Variables	<b>E-AP-02:</b> Explore and use variables in a program.	<b>M-AP-05:</b> Create clearly named variables that represent different data types and perform operations on their values.	<b>H-AP-03:</b> Use functions, data structures or objects to simplify solutions, generalizing computational problems instead of repeated use of simple variables.
Algorithms & Programming	Control	<b>E-AP-03:</b> Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	<b>M-AP-07:</b> Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.	<b>H-AP-06:</b> Justify the selection of specific control structures when tradeoffs involve implementation, readability, and program performance and explain the benefits and drawbacks of choices made.





## Progression Chart

Concept	Subconcept	Grades K-5 By the end of Grade 5, students will be able to:	Grades 6-8 By the end of Grade 8, students will be able to:	Grades 9-12 By the end of Grade 12, students will be able to:
Algorithms & Programming	Control	-	-	<b>H-AP-15:</b> Compare and contrast fundamental data structures and their uses.*
Algorithms & Programming	Control	-	-	<b>H-AP-21:</b> Use version control systems, integrated development environments (IDEs), and collaborative tools and practices (code documentation) in a group software project.*
Algorithms & Programming	Modularity	<b>E-AP-04:</b> Decompose precise steps needed to solve a problem.	<b>M-AP-02:</b> Decompose problems and subproblems into parts to facilitate the design, implementation, and review of programs.	<b>H-AP-05:</b> Decompose problems into smaller components through systematic analysis, using constructs such as procedures, modules, and/or objects.
Algorithms & Programming	Modularity	<b>E-AP-05:</b> Use a process when creating programs or computational artifacts.	<b>M-AP-06:</b> Create procedures with parameters to organize code and make it easier to reuse.	<b>H-AP-18:</b> Analyze a large-scale computational problem and identify generalizable patterns that can be applied to a solution.*
Algorithms & Programming	Program Development	<b>E-AP-06:</b> Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.	<b>M-AP-01:</b> Distribute tasks and maintain a project timeline when collaboratively developing computational artifacts.	<b>H-AP-01:</b> Evaluate licenses that limit or restrict use of computational artifacts when using resources such as libraries.
Algorithms & Programming	Program Development	<b>E-AP-07:</b> Document, share and reflect when creating programs using correct terminology.	<b>M-AP-12:</b> Develop a process creating a computational artifact that leads to a minimum viable product followed by reflection, analysis, and iteration.	<b>H-AP-02:</b> Use a development process in creating a computational artifact that leads to a minimum viable product followed by reflection, analysis, and iteration.



## Progression Chart

Concept	Subconcept	Grades K-5 By the end of Grade 5, students will be able to:	Grades 6-8 By the end of Grade 8, students will be able to:	Grades 9-12 By the end of Grade 12, students will be able to:
Algorithms & Programming	Program Development	<b>E-AP-08:</b> Identify and correct errors in an algorithm.	<b>M-AP-03:</b> Seek and incorporate feedback from team members and users to refine a solution that meets user needs.	<b>H-AP-04:</b> Design and iteratively develop event-driven computational artifacts for practical intent, personal expression, or to address a societal issue.
Algorithms & Programming	Program Development	-	<b>M-AP-08:</b> Incorporate existing code, media, and libraries into original programs, and give attribution.	<b>H-AP-08:</b> Create artifacts by using procedures within a program, combinations of data and procedures, or independent but interrelated programs.
Algorithms & Programming	Program Development	-	<b>M-AP-09:</b> Systematically test and refine programs using a range of test cases.	<b>H-AP-09:</b> Evaluate and refine computational artifacts to make them more usable and accessible using systematic testing and debugging.
Algorithms & Programming	Program Development	-	<b>M-AP-10:</b> Document programs in order to make them easier to follow, test, and debug.	<b>H-AP-10:</b> Systematically design and develop programs for broad audiences by incorporating feedback from users.
Algorithms & Programming	Program Development	-	<b>M-AP-11:</b> Evaluate licenses that limit or restrict use of computational artifacts when using resources such as libraries.	<b>H-AP-11:</b> Design and develop computational artifacts working in team roles using collaborative tools.*
Algorithms & Programming	Program Development	-	f-	<b>H-AP-12:</b> Describe how artificial intelligence drives many software and physical systems.*



## Progression Chart

Concept	Subconcept	Grades K-5 By the end of Grade 5, students will be able to:	Grades 6-8 By the end of Grade 8, students will be able to:	Grades 9-12 By the end of Grade 12, students will be able to:
Algorithms & Programming	Program Development	-	-	<b>H-AP-17:</b> Construct solutions to problems using student-created components, such as procedures, modules and/or objects.*
Algorithms & Programming	Program Development	-	-	<b>H-AP-19:</b> Select and employ an appropriate component or library to facilitate programming solutions.*
Algorithms & Programming	Program Development	-	-	<b>H-AP-20:</b> Develop programs for multiple computing platforms.*
Algorithms & Programming	Program Development	-	-	<b>H-AP-22:</b> Modify an existing program to add additional functionality and discuss intended and unintended implications (e.g., introducing errors).*
Algorithms & Programming	Program Development	-	-	<b>H-AP-23:</b> Evaluate key qualities (including correctness, usability, readability, and efficiency) of a program.*
Algorithms & Programming	Program Development	-	-	<b>H-AP-24:</b> Compare multiple programming languages and discuss how their features make them suitable for solving different types of problems.*
Impacts of Computing	Culture	<b>E-IC-01:</b> Discuss how computing has impacted society.	<b>M-IC-01:</b> Discuss issues of bias and accessibility in existing technologies.	<b>H-IC-01:</b> Reduce bias and equity deficits through the design of accessible computational artifacts.





## Progression Chart

Concept	Subconcept	Grades K-5 By the end of Grade 5, students will be able to:	Grades 6-8 By the end of Grade 8, students will be able to:	Grades 9-12 By the end of Grade 12, students will be able to:
Impacts of Computing	Culture		<b>M-IC-02:</b> Compare the positive & negative effects of computing technologies on society.	<b>H-IC-03:</b> Research how computational innovations that have revolutionized aspects of our culture might have evolved from a need to solve a problem.
Impacts of Computing	Culture			<b>H-IC-06:</b> Evaluate the impact of the digital divide (i.e. inequity of computing access, education and influence) on the development of local communities and society.
Impacts of Computing	Culture			<b>H-IC-07:</b> Demonstrate ways computational design (i.e. algorithms, abstractions and analysis) can apply to problems across disciplines.*
Impacts of Computing	Social Interactions	<b>E-IC-02:</b> Discover how computing devices have affected the way people communicate.	<b>M-IC-03:</b> Collaborate with others using appropriate tools at the local, national, and/or international levels.	<b>H-IC-02:</b> Evaluate and assess how computing impacts personal, ethical, social, economic, and cultural practices.
Impacts of Computing	Safety, Law & Ethics	<b>E-IC-03:</b> Evaluate the relevance and appropriateness of electronic information sources and digital media.		<b>H-IC-04:</b> Explain the beneficial and harmful effects that laws governing data (intellectual property, privacy etc.) can have on innovation.
Impacts of Computing	Safety, Law & Ethics	<b>E-IC-04:</b> Understand the importance of proper use of data and information in a computing society.		<b>H-IC-05:</b> Evaluate and design computational artifacts to maximize their benefit to society.*



## Progression Chart

Concept	Subconcept	Grades K-5 By the end of Grade 5, students will be able to:	Grades 6-8 By the end of Grade 8, students will be able to:	Grades 9-12 By the end of Grade 12, students will be able to:
Impacts of Computing	Safety, Law & Ethics		M-IC-04: Discuss the benefits and consequences of making information either public or private.	H-IC-08: Debate laws and regulations that impact the development and use of software and the protection of privacy.
Computing Systems	Devices	E-CS-01: Select and operate appropriate software and hardware to perform a variety of tasks and recognize that users have different needs and preferences for the technology they use.	M-CS-01: Recommend improvements to the design of computing devices based on an analysis of how users interact with the devices.	H-CS-01: Explain how abstractions hide the underlying implementation details of computing systems embedded in everyday objects.
Computing Systems	Hardware & Software	E-CS-02: Identify and describe the function of common physical components of computing systems (hardware) using appropriate terminology.	M-CS-02: Design projects that combine hardware and software components to collect and exchange data.	H-CS-02: Compare levels of abstraction and interactions between application software, system software and hardware layers.
Computing Systems	Hardware & Software			H-CS-04: Categorize the roles of operating system software.
Computing Systems	Hardware & Software			H-CS-05: Illustrate ways computing systems implement logic, input, and output through hardware components.*
Computing Systems	Troubleshooting	E-CS-03: Describe basic hardware and software problems using accurate terminology.	M-CS-03: Identify and fix problems with computing devices and their components systematically.	H-CS-03: Develop guidelines that convey systematic troubleshooting strategies that others can use to identify and fix errors.





# Floyd County Schools

## Student & Guardian Technology Integration

### Implementation Pledge

## Implementation Pledge

### Student:

- I accept responsibility for the care and protection of my device.
- I accept responsibility for the care and protection of a "loaner" device assigned to me.
- I will bring my device to school every day and ensure my device is fully charged and ready to use daily.
- I will complete my digital citizenship pledge (Pre K-4) or Digital Driver's Licences (5-12), model appropriate online behavior, and demonstrate that I understand that my device is for educational use only.
- I will always supervise my device or leave it in a secure location.
- I will carry my device in my assigned case and ensure that no food or drink is around my device.
- I understand I am responsible for backing up all data on my device.
- I will report loss, theft, and/or malfunction immediately.
- I will not change the appearance of my device with drawings or stickers and I will keep identifying codes on my device.
- I understand that my device is subject to inspection at any time without notice and remains the property of the Floyd County Public Schools.
- I will follow the policies outlined in the Device Handbook and the Acceptable Use Policy at all times.
- I agree to return the device, case, and power cords in good condition at the end of the school year or if I terminated enrollment at FCS for any reason.
- I have read, understand, and agree to the Acceptable Use Policy (AUP) for the Floyd County Schools.

### Parent/Guardian:

As the parent(s) or guardian(s) of \_\_\_\_\_, we have read, understand, and agree with the requirements outlined in this Technology Integration Handbook, Student Implementation Pledge and the Floyd County Acceptable Use policy. Additionally, we agree to support the digital conversion initiative by monitoring the use of the device while at home.

We will:

- Investigate and apply parental controls
- Develop a set of rules/expectations for laptop use at home.
- Only allow laptop use in common rooms of the home (e.g. living room or kitchen) and not in bedrooms
- Demonstrate a genuine interest in what my student is doing on the laptop. Ask questions and request that they show us his or her work often.
- Ensure students bring the device to school daily fully charged.
- Ensure the student turns the device in at school before summer break or participates in the buy-back program at the end of the 8th & 12th-grade years.
- I have read, understand, and agree to the Acceptable Use Policy (AUP) for the Floyd County Schools. I agree with all requirements outlined in the Technology Integration Handbook, Student Implementation Pledge, and Acceptable Use Policy.

Student Name (Please Print): \_\_\_\_\_

Parent/Guardian Name (Please Print): \_\_\_\_\_

Student Signature: \_\_\_\_\_

Parent/Guardian Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



Floyd County Schools  
Technology Integration  
SBDM Commitment Form

## SBDM Commitment Form

We understand that the Floyd County Technology Integration initiative is a commitment to change the way students are educated in Floyd County Schools. We agree to ensure that all policies and procedures concerning instruction are in line with the Technology Integration initiative. Additionally, we realize that the device is only a tool to enhance education opportunities for KIDS and we are committed to ensuring growth opportunities for our staff to ensure effective use of the device. Lastly, we acknowledge that the device is a district-owned device and our school will ensure that all devices are accounted for regularly to protect the TI program. We understand that a lack of accounting of the device may result in our school being charged for the cost of the device.

Principal Signature: \_\_\_\_\_

SBDM Approval Date: \_\_\_\_\_