

TECHNOLOGY PLAN AND POLICY

Balancing Innovation with Environmental Stewardship and Nature Connection

1. VISION AND GUIDING PRINCIPLES

At Limestone Community School, technology is a tool—not an end in itself. We do not ask "How much technology can we provide?" but "What role should technology play in a rich, balanced, environmentally conscious education?"

Core Values

- **Environmental Stewardship:** Every device has environmental consequences. We commit to buying less, choosing refurbished, repairing rather than replacing.
- **Outdoor Time Priority:** Time on screens cannot come at the expense of time outdoors. Connection to the natural world is essential.
- **Thoughtful Use:** Every technology use must be intentional, purposeful, and connected to learning goals.
- **Equity:** Our shared device model ensures all students have identical access regardless of family resources.
- **Community Over Individualism:** Sharing devices teaches collaboration, turn-taking, and resource stewardship.

The "Less is More" Philosophy

With a current ratio of 1 device to 9 students, we prove daily that excellent education doesn't require 1:1 devices. Our students develop digital literacy through limited, high-quality experiences.

Why We Choose NOT to Have 1:1 Devices:

- Educational research shows more screen time doesn't improve learning outcomes
- **Environmental impact:** 1:1 devices would create massive carbon footprint and eventual e-waste
- **Financial sustainability:** funds invested in outdoor education and hands-on materials instead
- **Equity:** 1:1 programs create new inequities based on home resources
- **Developmental needs:** elementary students develop best through physical, social experiences
- Shared devices require collaboration; personal devices can isolate

Benefits of Our Shared Model: Environmental leadership • Natural collaboration • Resource stewardship • Naturally limited screen time • True equity • Technology as occasional tool, not constant companion

2. ENVIRONMENTAL SUSTAINABILITY

Device Lifecycle

- **Refurbished-First Policy:** We prioritize refurbished devices. Every refurbished device prevents e-waste, reduces manufacturing impact, and costs 30-70% less.
- **Extending Lifespan:**
 - Protective cases and regular maintenance
 - Repair-first philosophy (aiming for 5+ year lifespan)

- Student involvement in device care
- Partnership with certified e-waste recyclers for end-of-life

Energy and Procurement

- **Efficient Practices:**
 - Minimal device count = minimal energy consumption
- **Before Any Purchase:**
 - Is this technology truly necessary?
 - Are refurbished options available?
 - Can we repair existing devices?
 - Purchase new only as last resort

Teaching Environmental Technology Literacy

- **K-2:** Devices come from factories, use materials, need care
- **3-5:** Mining, manufacturing, why refurbished matters, e-waste
- **6-8:** Complete lifecycle, supply chains, carbon footprint calculations, leading sustainability audits

3. SCREEN TIME AND USAGE PHILOSOPHY

Maximum Weekly Screen Time by Grade Tier

Grade Tier	Weekly Screen Time	Context
K-2	<30 minutes	Teacher-directed whole class only
3-5	45-90 minutes	Supervised pairs/small groups
6-8	90-150 minutes	Increasing independence with parameters

When Technology Is and Isn't Appropriate

- **Use Technology When:**
 - It enables learning impossible otherwise
 - Provides accessibility for students with specific needs
 - Supports environmental data collection/analysis
 - Teaches essential digital citizenship
- **Avoid Technology When:**
 - Hands-on alternatives are equally/more effective
 - Goal is developing non-digital skills
 - Would replace valuable face-to-face interaction
 - Primary benefit is adult convenience

Quality Over Quantity

We prioritize creation over consumption, interactive over passive, collaborative over isolated, purposeful over automatic.

4. DIGITAL CITIZENSHIP AND MEDIA LITERACY CURRICULUM

Digital citizenship and media literacy are essential 21st-century competencies taught across all grade levels, integrated into our broader curriculum.

Core Components

- **Digital Literacy**
 - Finding, evaluating, and using information effectively
 - Understanding how digital technologies work
 - Recognizing misinformation and manipulation
 - AI literacy as critical component
- **Digital Ethics**
 - Academic integrity in digital environments
 - Respecting intellectual property and copyright
 - Ethical technology use including AI
 - Privacy and data protection
 - Environmental responsibility in technology use
- **Digital Safety**
 - Protecting personal information
 - Cybersecurity basics
 - Recognizing online risks
 - Appropriate help-seeking
- **Digital Well-being**
 - Healthy technology habits
 - Balancing screen time with other activities
 - Maintaining real-world relationships
 - Connection to nature
- **Information and Media Literacy**
 - Evaluating source credibility and bias
 - Distinguishing fact from opinion
 - Verifying claims and fact-checking
 - Understanding how media is created and distributed
 - Recognizing persuasive techniques
 - Critical analysis of media messages

Developmental Progression

- **K-2 (Introduction):**
 - What is technology and how do we use it safely?
 - Being kind online and in person
 - Understanding that not everything we see/hear is true
 - Technology is one tool among many
 - Basic privacy concepts (don't share personal information)
- **3-5 (Foundation):**
 - How technology works (basic concepts)
 - Evaluating whether websites/information seem trustworthy
 - Understanding AI makes mistakes and needs verification
 - Digital citizenship: kindness, respect, privacy online
 - Beginning to fact-check information

- Understanding technology's environmental impact
- Citing digital sources appropriately
- **6-8 (Development):**
 - Advanced critical evaluation of digital sources
 - Understanding algorithms, bias, and data collection
 - Comprehensive fact-checking and verification skills
 - AI literacy: capabilities, limitations, hallucinations
 - Media literacy: recognizing manipulation, persuasion techniques
 - Digital footprint and online reputation
 - Environmental impact analysis of technology
 - Ethical technology use and digital citizenship leadership

Integration Across Curriculum

Digital citizenship is not taught in isolation but integrated throughout:

- Library/media specialist coordinates digital citizenship education
- Reinforced in Project-Based Learning as appropriate
- Classroom teachers integrate in relevant contexts

AI Literacy Components

Given our comprehensive AI Use Policy, students also develop:

- Understanding what AI is and how it works
- Recognizing AI hallucinations and verifying information
- Using AI ethically and with academic integrity
- Evaluating AI outputs critically
- Understanding AI's environmental and societal impacts
- Making informed decisions about when and how to use AI

5. CURRICULUM INTEGRATION

Technology Use by Subject

Subject	Primary Uses
Language Arts	Research, digital publishing, presentations
Mathematics	Data analysis, graphing
Science	Research, data analysis, presentations
Social Studies	Research, current events, presentations
Arts	Digital photography, documentation, composition
Outdoor Education	Digital photography, documentation

Coding and Computational Thinking

- **Unplugged First:** Most computational thinking taught without computers through pattern recognition, sequencing, logic puzzles, and algorithmic thinking.

- **Screen-Based Coding (Limited):**
 - **3-5:** Introduction to block-based coding, 15-30 min every few weeks
 - **6-8:** Advanced coding, 30-60 min weekly during units

6. GRADE-LEVEL EXPECTATIONS

K-2: Minimal and Supervised

- **Screen Time:** < 30 min/week
- **Skills:** Basic device vocabulary, gentle handling, understanding shared resources, basic safety
- **Uses:** Viewing images, occasional virtual field trip, accessibility accommodations

3-5: Limited and Purposeful

- **Screen Time:** 45-90 min/week
- **Skills:** Simple research, basic digital citizenship, creating presentations, evaluating websites, beginning AI literacy
- **Uses:** Research projects, creating presentations, documenting outdoor learning, simple data graphing, conducting interviews

6-8: Measured and Mindful

- **Screen Time:** 90-150 min/week
- **Skills:** Advanced research and evaluation, media production, comprehensive digital citizenship, AI literacy, coding, understanding technology's societal/environmental impact
- **Uses:** In-depth research, data analysis, documentaries, coding projects, data visualization, conducting interviews

By Grade 8: Students have strong digital literacy developed through purposeful, limited use. They can use technology effectively without being dependent on it.

7. INFRASTRUCTURE AND DEVICES

Our Device Philosophy

- **Current Inventory:** Fewer than 12 refurbished iPads (intentionally low ratio)
- **No 1:1 Program—Ever.** Our low student-to-device ratio is intentional, sustainable, and pedagogically sound.
- **No BYOD:** School provides all necessary technology to ensure equity and control environmental impact.

Device Management

- **Check-Out System:** Clear procedures, sign-out logs, equitable rotation, priority for accessibility needs
- **Maintenance:** Repair-first approach, student involvement in care, 5+ year lifespan target, protective cases

VIII. PRIVACY, SAFETY, AND EQUITY

Data Privacy

- Minimal data collection

- FERPA and COPPA compliance
- No sale of student data
- Shared devices = minimal personal accounts

Digital Safety

- **K-2:** All use supervised, locked-down devices
- **3-5:** Filtered platforms, training on reporting inappropriate content
- **6-8:** Age-appropriate filtering with growing autonomy

Equity and Access

- All technology provided by school
- No homework requiring home technology
- Extended school hours for access when needed
- Assistive technology per IEP/504 plans
- No wealth-based technology gap

Acceptable Use

Students must use devices for educational purposes only, handle carefully, report problems, respect others' work and privacy. Consequences for misuse range from brief loss of privileges to more serious disciplinary action.

CONCLUSION

Our graduates leave with:

- Strong digital literacy developed through purposeful, limited use
- Ability to use technology effectively without dependence
- Critical thinking about technology's role in society
- Environmentally conscious technology choices
- Collaboration and resource stewardship skills
- Comprehensive digital citizenship and media literacy
- Confidence in both digital and non-digital abilities

This policy embodies our belief that intention matters more than intensity. Every technology decision we make is deliberate: What serves learning best? What protects childhood? What honors the Earth? Our graduates leave with skills developed through thoughtful, limited technology use and with values that will guide their technology choices for a lifetime. They know how to use technology as a tool, not as a crutch. They understand that being connected doesn't require being constantly online. And they've experienced firsthand that some of the best learning happens with dirt under their fingernails and not a screen in sight.

This policy provides a framework for technology use at Limestone Community School. Questions, concerns, or suggestions should be directed to Bailey Pike, Librarian/Systems Management, library@limestoneschool.com.

This policy takes effect December 2025.

Next Scheduled Review: December 2026