Sustainable Instructional Device Strategy

'Supporting Effective Teaching & Learning through Strategic Device Distribution & Fiscal Stewardship'

Academic Advancement & Technology Services

WAKE COUNTY PUBLIC SCHOOL SYSTEM



State and District Strategic Plan Alignment

NC Digital Learning Plan:

Guides the transition to personalized, digital-age education across 5 key pillars:

- Leadership & Vision
- Human Capacity
- Curriculum, Instruction, & Assessment
- Technology Infrastructure & Devices
- Data Privacy & Cybersecurity

NC Digital Teaching and Learning Standards:

K-12 standards for students and educators that align digital learning with the standard course of study.

WCPSS Strategic Plan:

- Priority 1: Digital Literacy
  a. Deliver standards-based, rigorous,culturally responsive, and inclusive curriculum resources and instructional practices that are **enhanced by technology**.
- Priority 2: Overall Well-Being and Resilience
  a. Expand access to high-quality instructional programming, enrichment, and co-curricular activities to provide a **point of connection for every student.**

Agenda & Expected Outcomes

Strategic Agenda

- **Framework & What We Heard**
- **Current Device Model and Historical Costs**
- **Digital with Direction: Balancing Tech, Mindset, and Resources**
  - Elementary
  - Middle & High School
  - Professional Learning
- **Implementation Timeline**

Target Outcomes

Actionable Recommendations: Provide clear student device models balanced across financial viability and instructional efficacy.

Data-Driven Insights: Incorporate comprehensive cost-benefit analysis alongside qualitative educator feedback to guide decision-making.

What did we hear?



Mandated Assessments

Dedicated access is required during key testing windows (mClass, CogAT) to prevent scheduling friction.

Targeted Interventions

Daily small-group intervention blocks require simultaneous device access for all students in a classroom.

Instructional Time Loss

Shared cart models add setup and transition overhead, risking valuable active teaching time.

Significant K–2 Impact

K–2 educators expressed stronger concern regarding instructional and operational shifts than expected.

Purposeful Use

Ensuring technology is used to meaningfully enhance and not replace, effective learning strategies.

Balance

Finding an intentional balance between technology and traditional hands-on instruction.

Current Device Model

Device Procurement and Historical Costs

WAKE COUNTY PUBLIC SCHOOL SYSTEM



Current Device Model

Grades K–2: Stay at School Model

- **Classroom Sets:** One set of Chromebooks per homeroom classroom.
- **Device Assignment:** Devices are not assigned to individual students.
- **Stay at School:** K–2 students keep devices at school.

Grades 3–12: Take Home Model

- **Individual Assignment:** Devices are checked out or assigned to each student in grades 3–12.
- **Take-Home Access:** Students take assigned devices to and from school daily.
- **Device Purchasing:** New devices are bought each year for grades 3, 6, and 9.
- **Continuing Students:** Grades 4–5, 7–8, and 10–12 keep devices assigned in prior years.

Operational Challenges of the Take Home Model

Increase Device Damage

Daily transport to and from school increases device breakage.

Unreturned/Lost Devices

Devices lost or not returned at year end or on withdrawal.

Missing Chargers

Chargers are damaged or lost and must be replaced.

Impact on the District

Replacement costs, added administrative work, and logistical strain for schools.

Device Procurement Model SY 2026-27

TOTAL INVESTMENT

$14.9M

- 3rd Grade Purchase = 12,500 Devices
- 6th Grade Purchase = 12,500 Devices
- 9th Grade Purchase = 15,000 Devices

Total Purchased: 40,000 Total Devices

***BASE DEVICE BUNDLE INCLUDES**

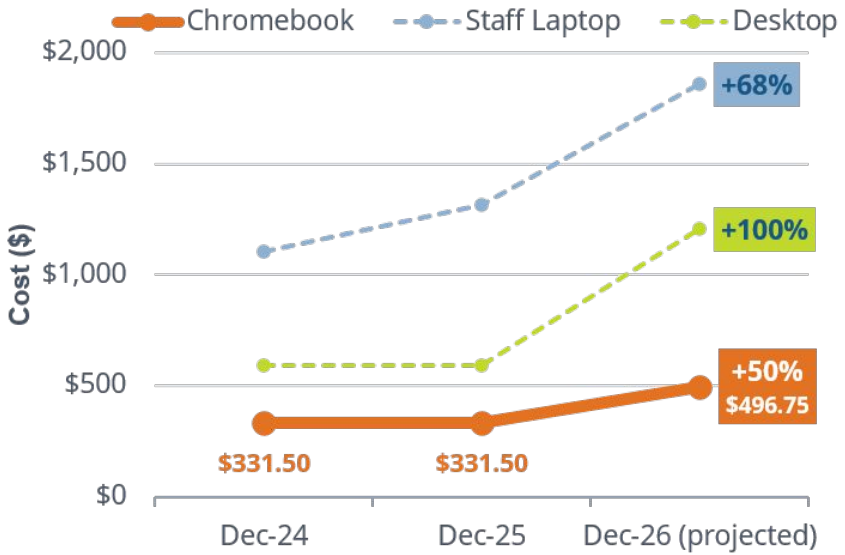
Charger, Google device license, 3Y warranty, white glove service, asset tag, and delivery.

Category	Qty	Unit Cost	Total
Chromebooks* Main Device Allocation	40,000	$331.50	$13.26M (88.9%)
Protective Cases Standard Case	40,000	$21.60	$864,000 (6.1%)
ADP (6th Grade Only) Accidental Damage Protection Program	12,500	$63.00	$787,500 (5%)

Note on ADP: Accidental Damage Protection (ADP) is a supplemental safeguard for breakage solely purchased for 6th grade. Benefits are currently being monitored. Projected breakeven is expected FY 2027-28.

Grand Total Procurement Model: $14,911,500

Technology Hardware Costs over Time 2024 - 2026



What's Driving the Increase?

AI-Driven Component Inflation

Rapid global expansion of AI data centers is driving up demand and unit pricing on processors, memory modules, and disk storage.

Supply Chain Instability

Ongoing supply chain challenges impacted by the international geopolitical climate.

Overall Cost Increase (2024–2026): Chromebook: **+50%** | Staff Laptops: **+68%** | Desktops: **+100%**

Digital with Direction: Balancing Tech, Mindset, and Resources

Elementary School Recommendations

WAKE COUNTY PUBLIC SCHOOL SYSTEM





“How do we balance the need for technology to access content and build digital literacy while recognizing the impacts of screen time and the constraints of limited resources?”

WAKE COUNTY PUBLIC SCHOOL SYSTEM

A Purposeful Shift: Keep Devices at School K-5

Recommendation:

Beginning in July 2027, all student devices remain at school in grades K-5. Principals have the authority to allow devices to go home based on instructional needs.

Reasoning:

Based on a Spring 2026 survey of elementary Principals, two-thirds of participants indicated that devices typically stay at school already.

The majority of Principals surveyed supported moving to a K-5 stay at school model for devices with flexibility as needed for instruction.

WAKE COUNTY PUBLIC SCHOOL SYSTEM

Instructional Impacts of Devices Staying at School

Instructional:

Teachers who currently assign homework or additional practice activities that require Chromebooks in grades K-5 will need to plan for options that do not require Chromebooks.

Screen Time:

This recommendation will improve the **balance of device use** outside of school hours and allow families the opportunity to **set the priority of access to technology** for our youngest learners.

WAKE COUNTY PUBLIC SCHOOL SYSTEM

Fiscal Impacts of Devices Staying at School

Financial:

- **Up-front Costs:** Requires additional Chromebook carts for storage and charging.
- **Future Cost Avoidance:** Keeping devices at school extends hardware life cycles and reduces lost and breakage costs.



WAKE COUNTY PUBLIC SCHOOL SYSTEM

K-5 Stay at School - Increase Lifespan of Device

K-5 Potential Cost Avoidance

By moving to a stay at school model for student devices, we expect...

Grade	Current Life Cycle	Life Cycle with Stay at school	Annual Cost Avoidance (# Devices × Device Cost × (1/Current Lifecycle − 1/New Lifecycle))
K	5 years	8 years	$488,766
1	5 years	8 years	$488,766
2	5 years	8 years	$488,766
3	3 years	6 years	$1,081,801
4	3 years	6 years	$1,081,801
5	3 years	6 years	$1,081,801
TOTAL (Annual Cost Avoidance)			$4,711,701 ($14M avoidance over 3 years)

*Device price is $496.75 + case $24.60 = $521.35

WAKE COUNTY PUBLIC SCHOOL SYSTEM

In-Progress: Shared Carts Case Study for Grades K-2

- Highcroft Elementary is currently participating in a case study for a shared cart model for grades K-2.
  - ***Shared cart model***: 1 cart of Chromebooks for every 2 homeroom classrooms, carts may be shared on different days or an am/pm structure depending on instructional need.

Recommendation:
Upon completion of the case study at Highcroft, recruit 5-8 elementary schools to pilot a shared cart model for grades K-2 in the 2027-2028 school year with intention to expand in the 2028-2029 school year.

WAKE COUNTY
PUBLIC SCHOOL SYSTEM

Timing Considerations for K-2 Shared Carts

K-2 devices are not planned for procurement until 2028-2029. This gives the district time to determine the best strategy for a reduced technology instructional model for elementary students. Other considerations include:

- Professional development planning based on technology use audits to refine purpose.
- Implementation of new standards: English Language Arts (27-28) and Mathematics (28-29)
- Adoption of new curriculum resources for the new standards
- Testing device planning

WAKE COUNTY
PUBLIC SCHOOL SYSTEM

Digital with Direction: Balancing Tech, Mindset, and Resources

Middle School Recommendations

WAKE COUNTY PUBLIC SCHOOL SYSTEM





"Screen time data shows the highest use in grades 6-8. 54% of staff surveyed in the Spring of 2026 responded that devices always or frequently impact student attention."

WAKE COUNTY PUBLIC SCHOOL SYSTEM

Classroom Management Application Pilot - MS

Recommendation:

Identify and recruit at least 5 middle schools across the district to pilot the use of a classroom management application for the Fall 2027 semester.

Reasoning:

Classroom management applications allow teachers to control access to internet connectivity and specific websites. Teachers can also monitor students website activity to redirect when needed.

WAKE COUNTY PUBLIC SCHOOL SYSTEM

Possible Impacts of a Classroom Management Application

Instructional:

Teachers may report higher rates of student attention during the school day and students may report fewer distractions from non-academic screen use.

Financial:

Purchasing licensing for a classroom management application would come at a higher district cost.

WAKE COUNTY
PUBLIC SCHOOL SYSTEM

Middle School Accidental Damage Protection (ADP) Pilot: In Progress

What ADP Provides

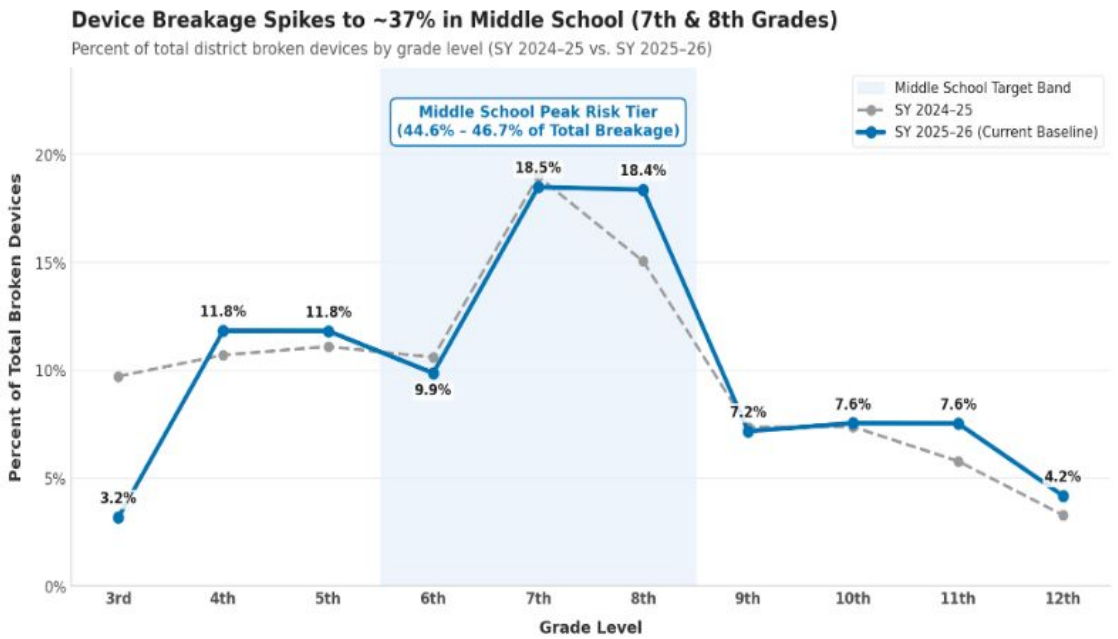
- **3-Year Coverage:** Accidental damage protection on every new 6th grade device.
- **Unlimited Repairs:** No cap on the number of accidental damage repairs per device.
- **Investment:** $63 ($21 per year) per device × 12,500 devices = $787,500.

How Repairs Work

- **On-Site Service:** Our vendor comes to the schools and repairs devices on campus.
- **Follows the Student:** Coverage stays with the device through 6th, 7th, and 8th grade.
- **Covers Peak Years:** Breakage rises in 7th grade, while coverage is still in effect.

*ADP only in 6th Grade for SY 2026-27

Why We Targeted Middle School with ADP



Targeted Breakage Coverage

Strategic multi-year coverage directly protects devices when district damage risk is highest.

Positive Pilot Impact

Initial ADP Pilot has been highly effective, repairing 100% of ADP broken devices with minimal disruption.

WAKE COUNTY
PUBLIC SCHOOL SYSTEM

Evaluate Feasibility of a Middle School Stay at School Model

Recommendation:

Conduct a comprehensive feasibility study in SY 2027-28 to evaluate whether a Middle School stay at school model is operationally viable, financially advantageous, and supported by school leadership prior to considering any pilot.

Reasoning:

Device breakage and screen time are highest in middle school. Studying a device stay at school model may provide positive benefits in both screen time reduction and reduced breakage. There will be impacts to master scheduling.

WAKE COUNTY PUBLIC SCHOOL SYSTEM

Digital with Direction: Balancing Tech, Mindset, and Resources

High School Considerations

WAKE COUNTY PUBLIC SCHOOL SYSTEM





"How do we ensure our high school students are equipped with the career and college ready skills they need while balancing the distractions that technology can pose?"

WAKE COUNTY PUBLIC SCHOOL SYSTEM

Classroom Management Application Pilot - HS

Recommendation:

Identify and recruit at least 2 high schools across the district to pilot the use of a classroom management application for the Fall 2027 semester.

Reasoning:

Classroom management applications allow teachers to control access to devices and specific websites. Teachers can also monitor students website activity to redirect when needed.

WAKE COUNTY PUBLIC SCHOOL SYSTEM

Possible Impacts of a Classroom Management Application

Instructional:

Teachers may report higher rates of student attention during the school day and students may report fewer distractions from non-academic screen use.

Financial:

Purchasing licensing for a classroom management application would come at a higher district cost.

WAKE COUNTY
PUBLIC SCHOOL SYSTEM

CTE Partnerships

- Technology Services and Academic Advancement continue to partner with our Career and Technical Education team to ensure students have access to the resources they need for CTE programs.
- Support for computer science courses and hands-on activities like *Code and Go* to enrich connections between technology and career opportunities.

Digital with Direction: Balancing Tech, Mindset, and Resources

Professional Learning Resources

WAKE COUNTY PUBLIC SCHOOL SYSTEM





Empowering all staff with the knowledge and skills to use technology purposefully is our driving force.

WAKE COUNTY
PUBLIC SCHOOL SYSTEM

Professional Learning for All Staff

- Implementation of technology use audits for the Spring of 2027 to identify professional learning needs to reduce passive technology use.
- Embed the Digital Literacy Progression and Digital Learning Standards into professional development plans for implementation of new English Language Arts (27-28) and Math (28-29) standards.
- Digital Learning Coordinators are available for school based professional development and for consultation with lesson design.
- Self-Paced and Virtual Professional Learning Opportunities are available in Wake Learns.

WAKE COUNTY
PUBLIC SCHOOL SYSTEM

Reaching our Goals Together

Overview of Recommendations

WAKE COUNTY PUBLIC SCHOOL SYSTEM



Phased Implementation

2026-2027	2027-2028	2028-2029
Ongoing Staff Professional Learning		
K-2 Shared Cart Case Study	K-2 Shared Cart Pilot	K-2 Shared Cart Implementation
6th Grade ADP Pilot	ADP Implementation and Expansion	
	K-5 Devices Stay at School	
	Evaluate MS Devices Stay at School Feasibility Study	Determine MS Strategy (Based on Feasibility Study)
	Pilot of Classroom Management Application for MS & HS	Possible Implementation of Classroom Management Application

Other Considerations for Balance

- Development of a family portal to view screen time data for their student(s) and set restrictions on device use outside of school hours.
- Screen time data sharing with school leaders and staff to understand current usage trends and identify needs for professional learning.

"When teachers have adequate support and preparation, they observe measurable improvements in student learning." - *From Screentime to Screen Value*, *ISTE + ASCD*

Upcoming Session

Final Presentation of Strategy

WAKE COUNTY PUBLIC SCHOOL SYSTEM




Thank You!
WAKE COUNTY
PUBLIC SCHOOL SYSTEM