

LEARNER-CENTERED
SAFE TECHNOLOGY
LOUISVILLE'S FUTURE



RESPONSIBLE INNOVATION

ETHICS FIRST
COMMUNITY BENEFIT



Modeling urban
urban clean air
solutions



Planning and
economics



Planning community
and learning workshop

JCPS Educational Technology Presentation

March 31, 2026

TECH IN EDUCATION: CURRENT TENSIONS (2026 UPDATE)



1. THE "CRITICAL THINKING" CRISIS



THE CONCERN: Generative AI as a "COGNITIVE CRUTCH"

THE ARGUMENT: 84% OF FACULTY (e.g., College Board 2026) believe AI reduces deep thinking and original writing.

THE "NOISE": Skills Gap. Polish essays, can't explain logic.



2. THE GREAT "CELL PHONE BAN" MOMENTUM



THE SHIFT: States mandating laws to ban or severely restrict smartphones in K-12.

THE WHY: Teachers "competing with TikTok." Linked (US Senate 2026) to teen mental health crisis and declining scores.

GLOBAL MOVEMENT for classroom focus.



3. "DIGITAL FATIGUE" & THE RETURN TO PAPER



THE TREND: Growing "ANALOG BACKLASH." Mandates for paper-work.

THE LOGIC: Physical writing creates better neural pathways for memory retention.

tech-advanced systems returning to analog.



4. THE DATA PRIVACY & "SURVEILLANCE" DEBATE



THE CONCERN: "SURVEILLANCE." High data collection on minors via AI platforms.

SECURITY RISKS: Rise in ransomware attacks on school districts (2025—2026). Data leaks.

"Engagement-prolonging designs" and digital dependency risks.

Even in the midst of the noise, technology is here to stay.

So how do we successfully integrate
technology into education



The Digital Divide: Access vs. Devices

Access to INSTRUCTIONAL DEVICES

- Reflects the “Haves” vs the “Have Nots”
- Equitable access to internet connectivity
- Systematic approach to ensure device availability, maintenance, and sustainability.

SUCCESSFUL RESPONSE (for now):

- Used ESSER/CARES funds to address for first time
- Sustainability is reliant upon future district commitments.



The “NEW” Divide: Access vs. Content

Access to INNOVATIVE INSTRUCTION

- “Traditional” vs. “Innovative” Teaching Styles
- Utilizing technology as a tool to enhance teaching and learning
- Access and understanding around GenAI
- “Creation” rather than “Consumption”

Work in Progress

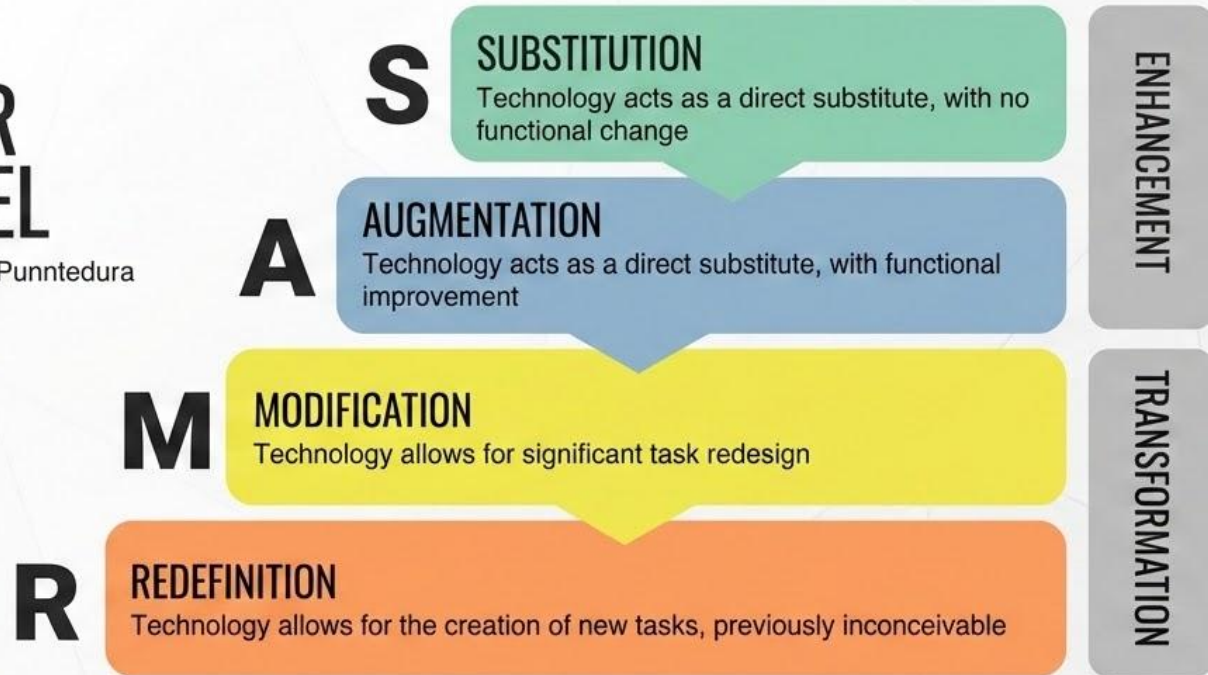
- This requires intentional implementation, development, and vision. To solve these issues, ALL stakeholders must be committed!



The strategic integration of technology opens new learning possibilities...

THE SAMR MODEL

Dr. Ruben R. Punttedura



... but we must integrate with purpose and intentionality.

SAMR Example: Research & Writing

Evolution of a Task

Consider the task: “Learn about global climates.”



S: Substitution

Read a PDF textbook instead of print.



A: Augmentation

Use interactive links and keyword searches.



M: Modification

Collect data on shared maps with other schools.



R: Redefinition

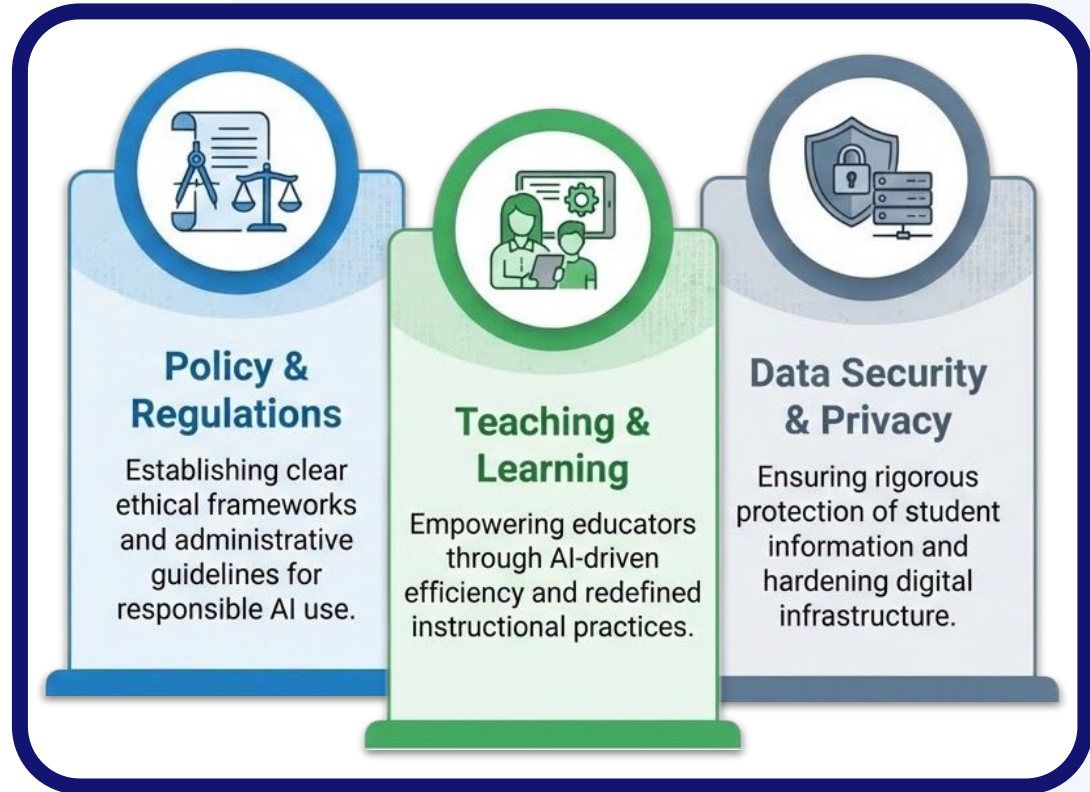
Live video-call a researcher in the Arctic to discuss findings.

Properly integrated, technology opens new learning dimensions.

United by Design: A Multi-Departmental Approach to Gen AI

Guided by specialized Generative AI consultancy, we focused discussions on three critical domains to ensure a responsible and robust implementation.

Our approach moves beyond technology adoption to **systemic transformation** - ensuring every innovation is rooted in **safety, equity, and instructional excellence**.



Generative AI in JCPS: A Commitment to **Responsible Innovation**



Students and Teachers First

While multiple “Guiding Principles” were crafted, people remain at the center. These technology enhance and compliment first-class teaching and learning.



Safe and Secure Access

As Gen AI supports incredible innovation, JCPS understands the importance of data security. Our Gen AI directions are grounded in safe and secure data protection; with data not being reviewed or used to train models.



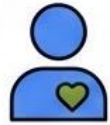
Jefferson County
Public Schools



Artificial Intelligence Implementation Guide



JCPS AI Guiding Principles



1. Human-Centered and Supportive AI



2. Equitable and Accessible AI



3. Ethical and Responsible AI Use



4. Enhancing Teaching and Learning



5. Continuous Evaluation and Improvement



6. Data Quality and Integrity



7. Secure, Evaluated, and Innovative AI

Technology Profile



Infrastructure & Connectivity



16,000 Phones



100 Gbps Internet Connection



2,500 Copiers/Printers,
750,000 Avg Daily Prints



170 Connected Buildings



5,400+ Security Camera Views



100 Miles of JCPS Owned Fiber Cable (64 bldgs)



6,400 Audio Enhancement Controllers & Amps



2,000 Network Switches



18,500 Audio Enhancement Classroom Speakers



11,000 Wireless Access Points



7,000 Panels



100,000 Managed Switch Ports

Devices & Access



100,000 Student Accounts



20,000 Staff & Vendor Accounts



125,000 Chromebooks



10,000 Windows Devices



10,000 iPads

Systems & Support



100+ Custom Apps – Developed & Supported



1,000+ Developed & Supported Reports



500 Production Databases



1,700 Terabytes of Managed Storage



450 Virtual Servers



100 Physical Servers with **900** Cores

Do we have a “Not Enough Stuff” problem? Should we just add the right tool(s)?




Or maybe it's a complexity problem and we need to think about simplification?




Analyzing Collaboration Platform Usage: Microsoft vs. Google

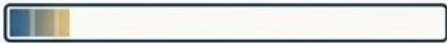


It is important to utilize data for decision support and we have studied usage across both of our collaboration platforms to understand what our community is using. Here are a few key comparisons...

 **Microsoft**


Cloud File Storage (OneDrive)

 **57 Terabytes**
(~30 million files)




 **Google**

Cloud File Storage (Google Drive)

 **794 Terabytes**
(~418 million files)



Online Meetings (Teams)

 **~250** Daily Meetings

Online Meetings (Google Meet)

 **~2,200** Daily Meetings
(up to 20,000 on NTI days)



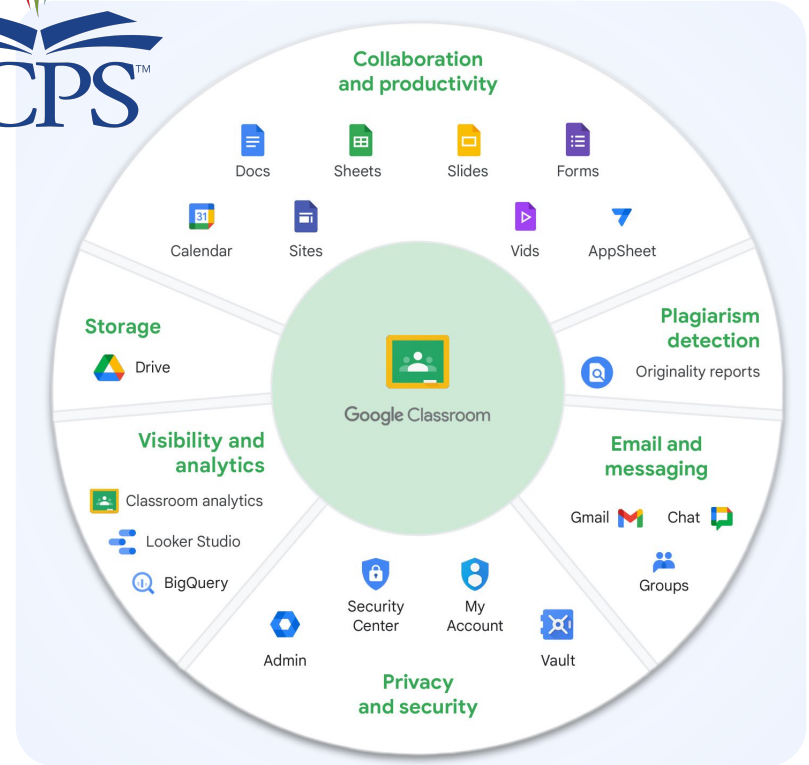
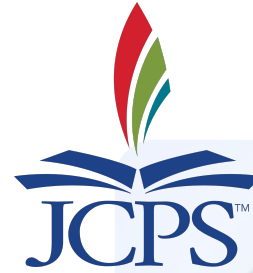
Where teaching and learning **come together**

Google Classroom brings together Google Workspace for Education productivity tools, creating a seamless flow between all the apps you love, built with enterprise-grade security.

THE CLASSROOM DIFFERENCE

Google Classroom is more than an LMS solution; it's a complete learning ecosystem, seamlessly integrated with Google Workspace and top EdTech tools while offering AI-powered capabilities and data-driven insights to support leaders, teachers, and students.

As part of Workspace, Classroom is cost-effective, easy to implement, and packed with innovative features that foster personalized learning, making it the ideal choice for schools looking to streamline their technology and power student potential.





Building a Foundation, While Focusing on the Horizon

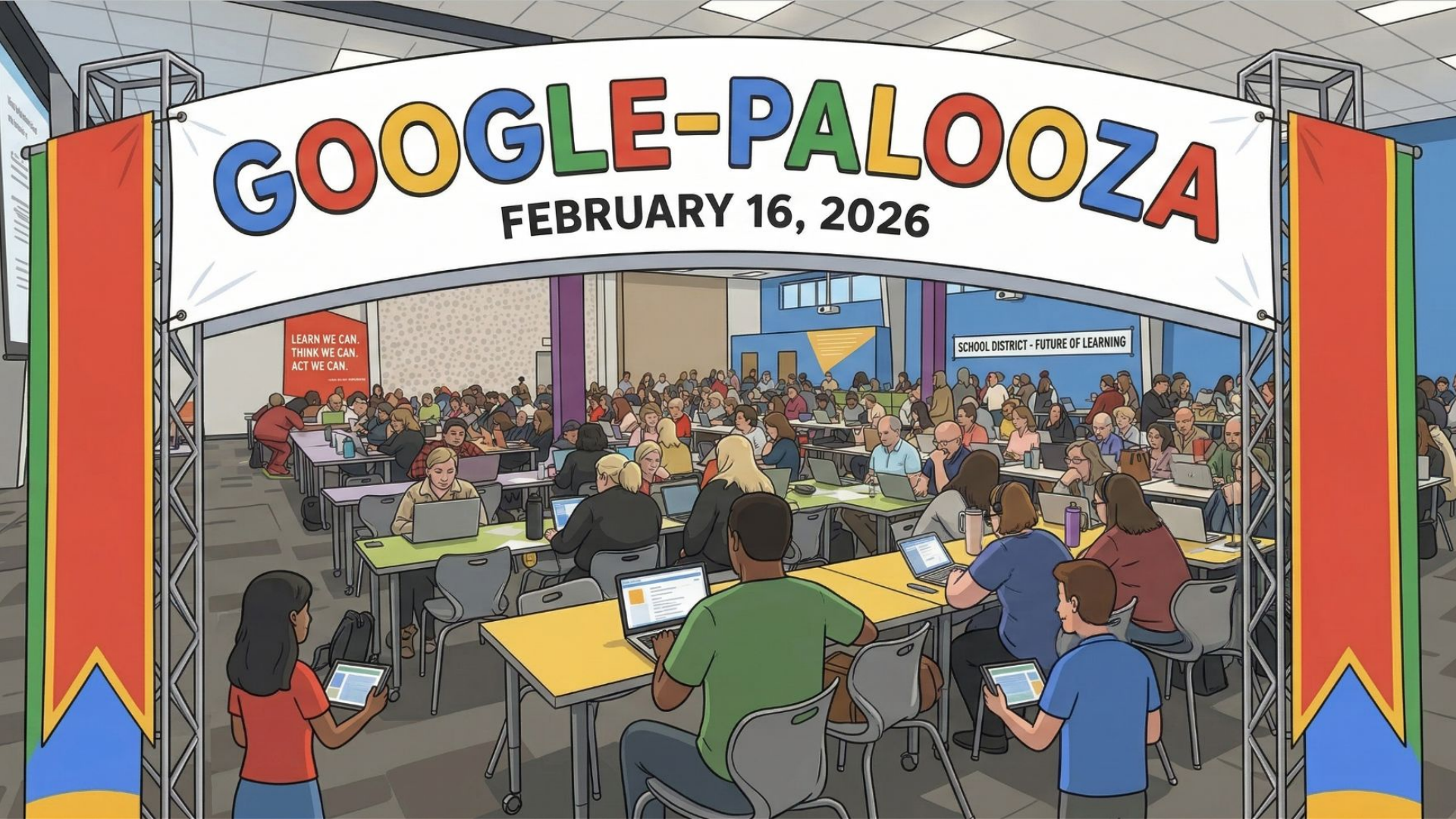
- ✓ Students were moved to Gmail for Education in June 2025
- ✓ All JCPS Staff were moved to Gmail for Education on February 16, 2026
- ✓ Our foundational ecosystem is Google Workspace for Education

GOOGLE-PALOOZA

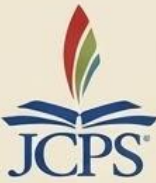
FEBRUARY 16, 2026

LEARN WE CAN.
THINK WE CAN.
ACT WE CAN.

SCHOOL DISTRICT - FUTURE OF LEARNING



The impact on the classroom becomes compelling...



Modeling Digital Citizenship



By moving to Gmail, teachers will utilize the exact same interface as their students. This empowers educators to model critical executive functioning skills - such as inbox organization, calendar management, and professional communication - in real-time, using the tools students actually see on their screens.

Removing Barriers to Learning



We are eliminating the friction of "mixed ecosystems." Teachers frequently encounter permission errors when sharing Google Drive resources via Outlook. A unified platform ensures that when a teacher shares a file, the student receives it instantly, returning valuable minutes to instruction.

The Guiding Principle



Ultimately, this transition is grounded in the fundamental commitment to doing what is best for kids. By equipping teachers with a platform that natively integrates with Google Classroom, we remove technical hurdles, allowing them to focus entirely on student success.

As we unlock the power of our Google Ecosystem

Delivering **high-quality supports** and **differentiated resources** at a scale that was previously impossible.



Streamlines Unit Planning

Acts as a pedagogical architect, instantly transforming broad topics into structured, standards-aligned learning journeys so teachers can skip the blank page and focus on refined instruction.



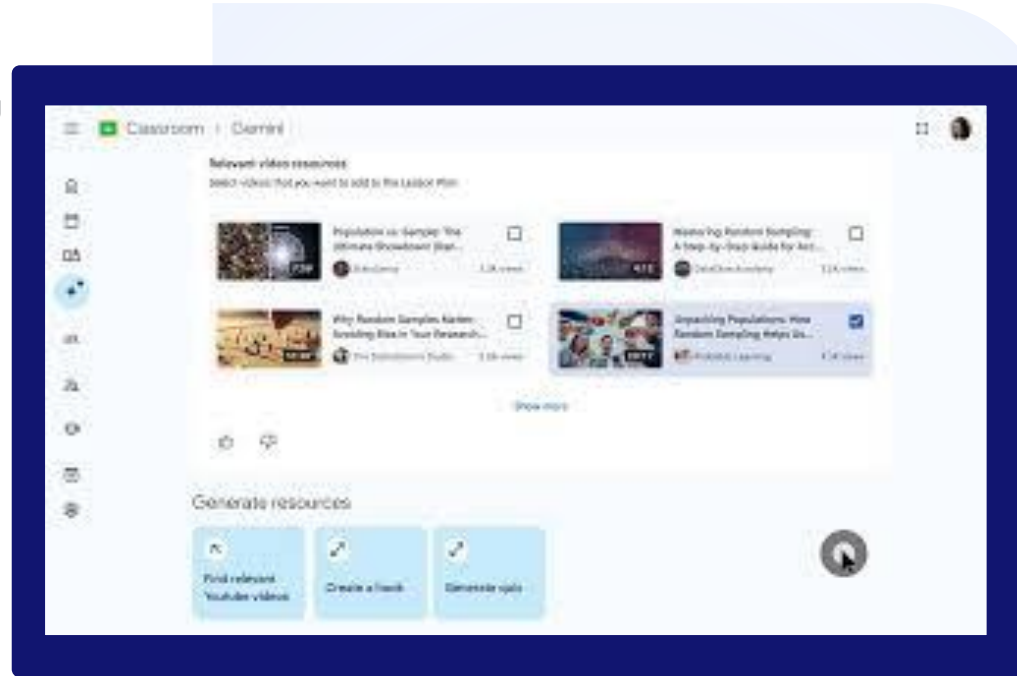
Differentiate for All Learners

Assists as an adaptive engine that instantly generates multi-level lesson tracks and diverse resource formats, allowing teachers to bridge the gap between a single curriculum and the unique learning needs of every student.



Aligns to Learning Standards

Maps every lesson and resource directly to specific state standards, ensuring that both teacher instruction and student learning milestones are perfectly aligned with required academic benchmarks.



Tracking Learning Progress

Standard tagging allow for **real-time analysis and response**



Tag coursework in Google Classroom (assignments, quiz assignments, questions and materials) with learning skills and Kentucky learning standards.



Teachers will be able to find, select, and tag relevant standards by grade level, subject area, and even specific keywords in their assignments.



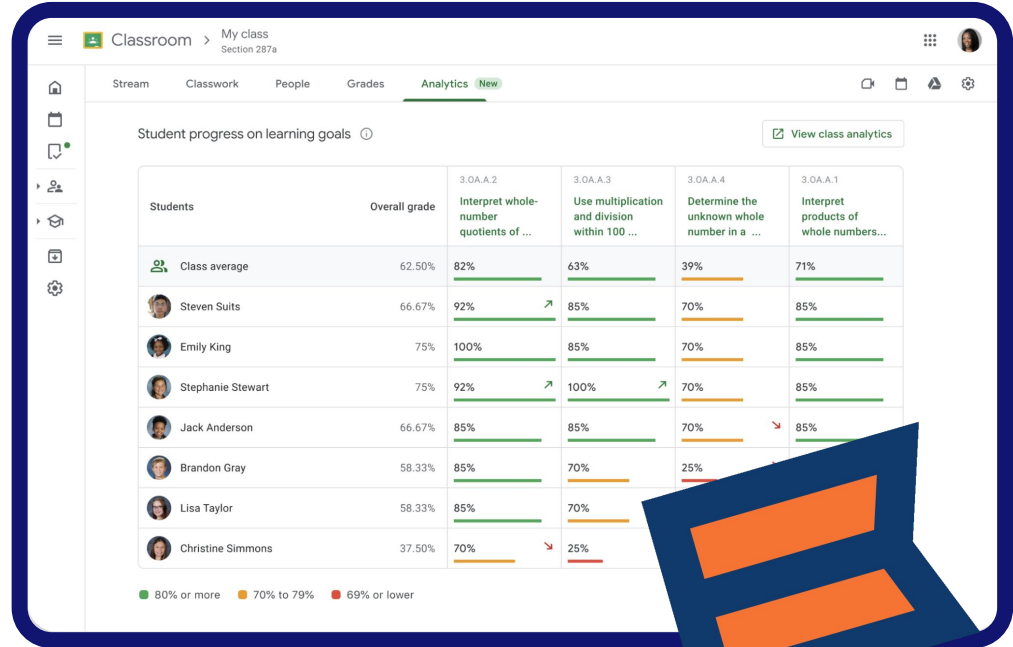
Teachers will be able to grade using standards-based rubrics to pinpoint student success and learning.



Access an analytics view of student and class performance over time, tied to these tagged learning goals.



These features save teachers time, support more focused instruction, and give both educators and students clear, actionable insights into progress.



KY Standards from CASE Network 2

Going Forward...



Re-engage the GenAI Task Force to continue the conversation about student access and usage



Continue building the infrastructure required to support new technology in our schools



Continue efforts to simplify our technical ecosystem wherever possible



Continue our work in improving cybersecurity protections



Questions?

