

From Algorithms to Achievement: Microsoft Al Solutions for Educators

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find me on LinkedIn!

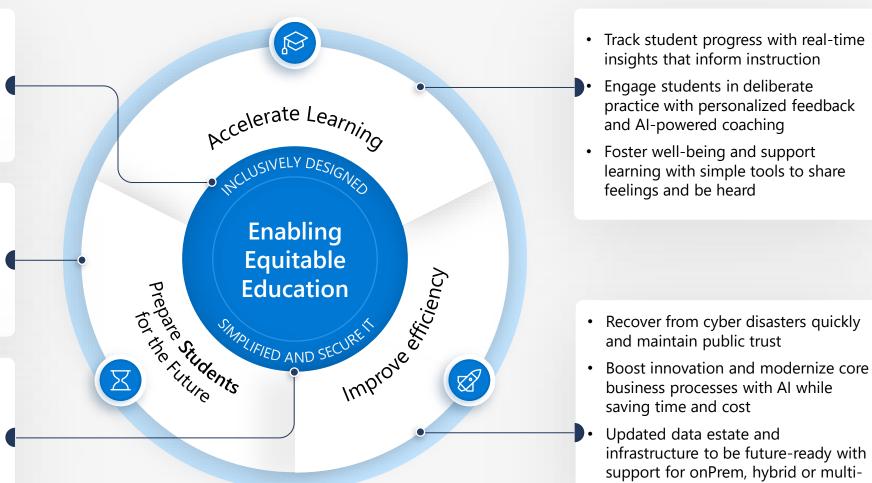




# **Enabling Equitable Education | K-12**

Equitable solutions for education that are inclusively designed to help all learners achieve more.

- Built-in tools that provide students multiple ways to create, engage and fully participate in learning
- Customize the type and level of accessibility support required for each student
- Workplace readiness skills that prepare students for a rapidly changing future
- Build student engagement with immersive experiences and content
- Safe and secure learning experiences backed by world-class protection
- Defend against cyber threats and keep student data safe
- Simplify deployment and management of devices and identity



cloud environments

# Save time for what matters most



More than half of a teacher's job involves specialized skills that need to be performed by humans like classroom management and differentiating instruction.

45% of teacher skills support tasks where Al could enable greater productivity such as lesson planning and curriculum development.

# Prepare students for the future



of leaders say employees will need new skills to prepare for Al including judgement, flexibility, EQ, curiosity, Al delegation



Early research finds that by leveraging AI as a coach, LLMbased explanations positively impacted learning

# Improve efficiency and unlock productivity

For every \$1 an organization invests in AI, it is realizing an average return of

\$3.42

# Al is being leveraged for:

- Automating IT Tasks
- Fraud detection and cybersecurity
- Automating Education processes and workflows



struggle with having enough time in the day to get work done



of Copilot users said they were more productive



# **Better together**

New devices
powered by
Windows 11 for
Education, with
Microsoft 365
Education can help
accelerate learning,
reduce IT costs and
streamline security

# Windows 11

# Windows 11 for Education



Windows 11 is the most secure Windows ever with the world's largest selection of devices built for student safety, privacy, and focus. With built-in accessibility tools and advanced, cloud-based management for security from chip-to-cloud, Windows 11 provides a powerful platform for learning and preparation for college and career.

# Microsoft 365

# Microsoft 365 Education

Microsoft 365 Education is a suite of student-centered solutions, including AI powered Learning Accelerators that help students succeed in the classroom and beyond.

# Al in Education – Getting started

Leverage Microsoft
Al Services and
Copilot Stack to
Build, Automate,
and customize
learning

# Learning Accelerators

Leverage AI powered featured in Microsoft classroom tools to customize learning and increase collaboration.



Availability: Microsoft 365 A3 and A5 suites

Ages: all; licensed to institutions and permission managed

# Copilots

Take advantage of Microsoft Copilot in the classroom to create, automate everyday tasks, and be your personal assistant



Availability: Add-on in Microsoft 365 Suites; Windows + Bing

Ages: 18+

# Microsoft Entra

Secure access for a connected world- Easily manage user identities with: Azure Active Directory, Permissions management, verified IDs, identity governance, and workload identities.

Availability: stand alone or through A3/A5 license agreements



Ages: Faculty/Administration

# **Learning Accelerators**

Catch up, keep up, and get ahead with a new category of learning tools included in Microsoft 365

# **STUDENT**



**Benefits** 

Tools

Skills & '

# Real-time coaching

• Immediate personalized student coaching and practice



### Inclusive by design

- Students can practice where they feel most comfortable
- Built-in accessibility so every student can fully participate

### **EDUCATOR**



### Save time

- Al-assisted educator review
- Built into assignments



### **Actionable insights**

- Track progress
- See where students are challenged & excelling
- Get holistic view of your students

# **FOUNDATIONAL**



# **Reading Fluency** Reading Progress &

Reading Coach



### Numeracy

Math Progress & Math Coach



### Well-being

Microsoft Reflect

### **FUTURE-READY**



## **Information Literacy**

Search Progress & Search Coach



### Presentation

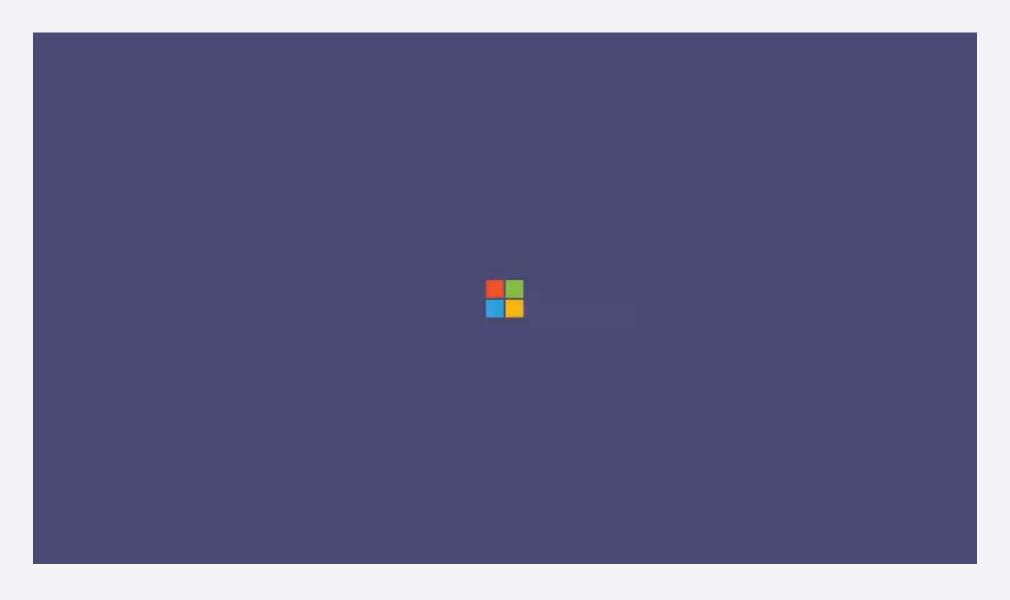
Speaker Progress & Speaker Coach



# **Education Insights**

Data from Learning Accelerator tools are automatically available in Education Insights for a more holistic view of each student at the individual, class, grade, school and organizational level.

# **Learning Accelerators – Reading Progress & Coach**





# Your AI assistant at work and in the classroom



# Discover

Quickly and reliably find the information you need



# Create

Generate content, summarize pages, and create images faster than ever before



# Act

Take action in Windows using natural language to boost productivity



# Engage

Seamlessly engage Copilot in your day to day with the upcoming Copilot key

# Why Microsoft Copilot?

It's powerful and protective

Powerful Al models



Copilot uses GPT-4 Turbo for text and DALL-E 3 for images Transparent about sources



Copilot cites the data sources behind its answers

No knowledge cutoff



Copilot provides up-todate answers. Answers are not limited by the date of the Al model Commercial data protection

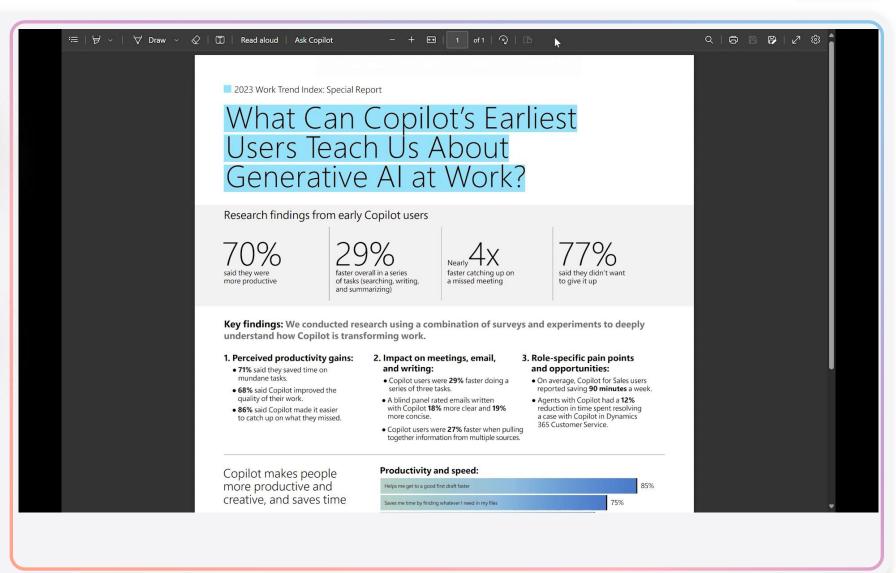


Copilot doesn't save prompts or answers, nor use them to train the Al model

# Copilot in Windows: Assisting Faculty

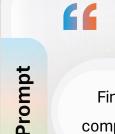






# Copilot in Windows: Finding local content





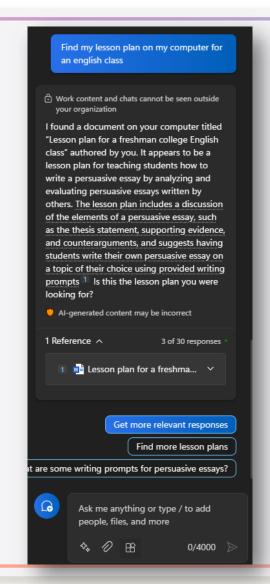
Find a lesson plan on my computer for an English class

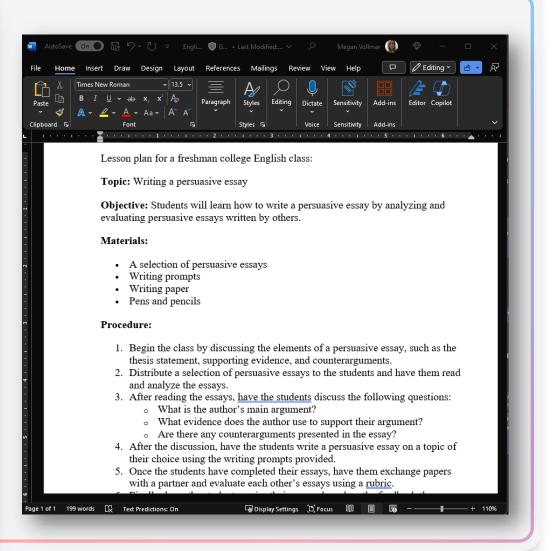
Note: I couldn't remember the

Name of the document, but Copilot

Scanned the content to find

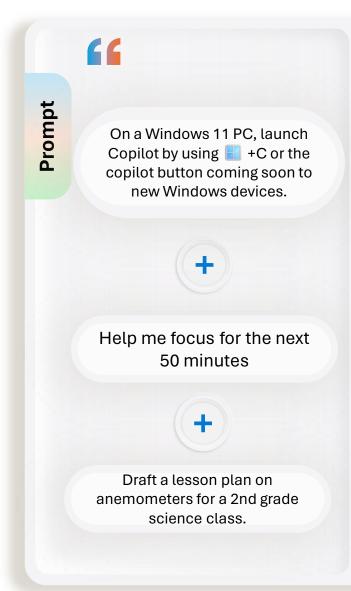
a relevant document

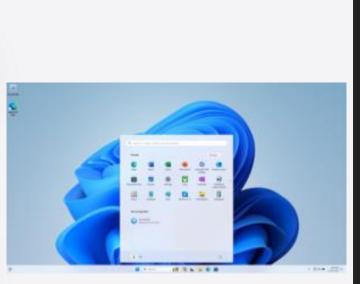


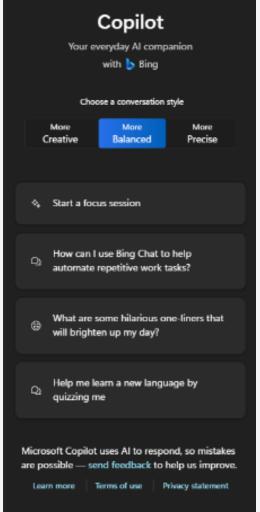


# Copilot in Windows: Focus & Creation









Draft a lesson plan on anemeters for a grade 2 science class The Work content and chats cannot be seen outside your organization Sure, here is a draft lesson plan on anemometers for a grade 2 science class: Lesson Title: Understanding Wind Speed with Anemometers Objective: Students will learn about anemometers and how they are used to measure wind speed. Materials: · Pictures or videos of anemometers · Paper cups Straws · Push pins Pencils Stopwatch Introduction (5 minutes): · Begin the lesson by asking students if they have ever felt the wind blowing. Ask them how they can tell if the wind is blowing hard or softly. · Show students pictures or videos of anemometers and explain that these are tools used to measure wind speed. Direct Instruction (10 minutes): · Explain to students that anemometers have cups that catch the wind and spin around. The faster the wind is blowing, the faster the cups will spin. · Demonstrate how to make a simple anemometer using paper cups, straws,

push pins, and pencils.

# Windows Snipping tool: Redacting information





### Meeting Minutes for Mukilteo North School District

Meeting Date: 11/19/1986 Meeting Time: 6:00PM PST Meeting Location: District Office

### Attendees:

- Dr. Meredith Stockingstuffer <u>Marystock@wednet.edu</u>; 425-444-4144
- Mr. Timothy Teeth timteeth@wednet.edu; 515-555-5551
- Gary Goobenstein garygoob@wednet.edu; 425-414-4114
- Terry Tarantula terrytarant@wednet.edu; 666-616-6166
- Jon John jonjohn@wednet.edu; 787-771-7117

### Agenda:

- Call to order
- Roll call
- 3. Approval of minutes from previous meeting
- 4. Discussion of student attendance
- 5. Suggestions on how to improve student attendance
- 6. New business
- 7. Adjournment

Minutes: The meeting was called to order at [Insert time of meeting]. The roll was <u>called</u> and all members were present. The minutes from the previous meeting were approved. The discussion then turned to student attendance. Attendees shared their thoughts on the current state of student attendance and offered suggestions on how to improve it. Some of the suggestions included:

- Creating a rewards program for students with perfect attendance
- · Providing transportation for students who live far away from school
- · Offering tutoring services for students who are struggling academically

The group then moved on to new business. [Insert any new business discussed during the meeting]. The meeting was adjourned at [Insert time of meeting].

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# Windows 11: Al powered Paint – image





**Prompt** 

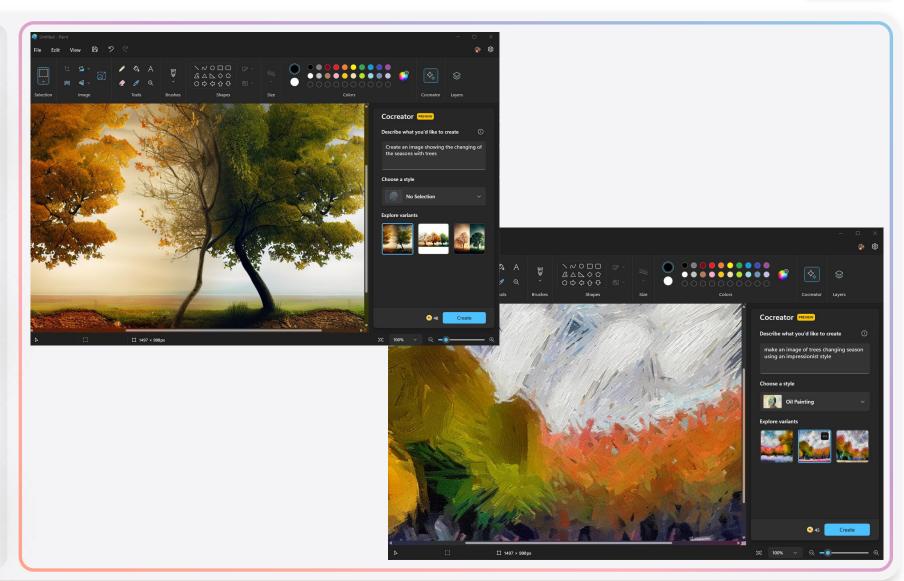
Select "cocreator" button within Microsoft Paint



Create an image showing the changing of the seasons with trees

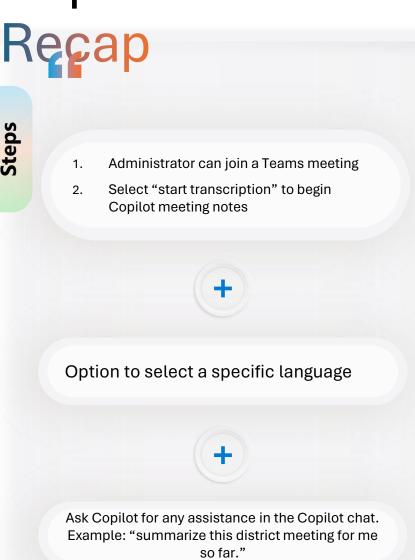


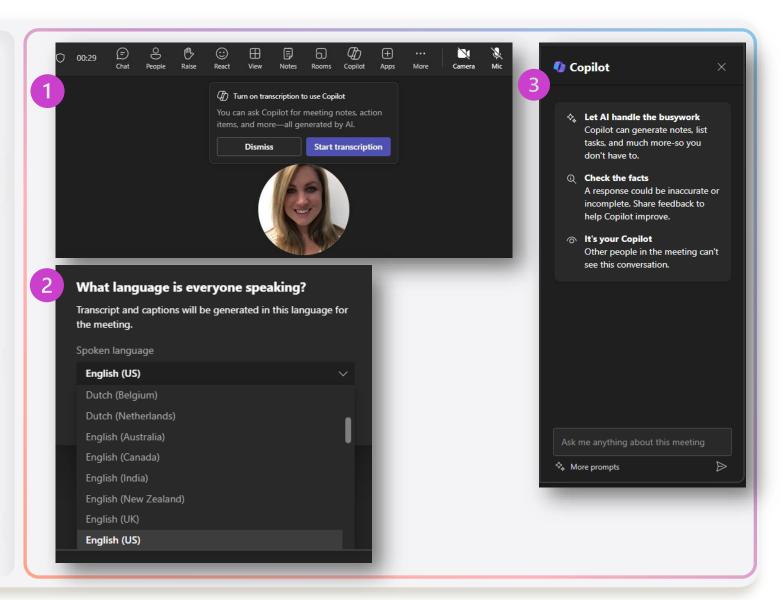
Make an image
of trees changing seasons
in an impressionist style



# Copilot in Teams: Get a District Meeting







# **AI Education Institution Use**

# K-12 Backoffice

- **1. Scheduling:** Redesigning the teaching and learning schedule to creatively reorganize the school day to meet the needs of staff and students.
- 2. Administrative tasks: Automating repetitive tasks such as data entry, scheduling, and managing student records, improving efficiency and reducing human error.
- 3. Resource management:

Optimizing the allocation of resources such as classrooms, teachers, and materials based on factors like class size, subject demand, and budget constraints.

4. **Communication:** Facilitating communication between parents, students, and staff through chatbots, personalized notifications, and automated email responses.

# K-12 Teacher Support

- **1. Internship Futures:** How might high school internships be designed when companies operate in a remote Alenabled environment?
- 2. Grading and assessment: All grading assignments, quizzes, and exams, providing personalized feedback to students and saving teachers valuable time.
- **3. Lesson planning:** Assisting in creating tailored lesson plans by generating content, activities, and assessments based on curriculum standards and individual student needs.
- **4. Classroom management**: Al can support teachers in tracking student engagement, participation, and behavior, allowing them to intervene or adjust their teaching strategies as needed.

# **Higher Education**

- **1.Personalized learning:** All can create adaptive learning pathways, recommending resources and activities based on each student's learning style, interests, and progress.
- **2.Research assistance:** GPT/AI can support faculty and students in literature reviews, data analysis, and even draft initial research papers, improving the research process's efficiency.
- **3.Academic advising:** All can enhance academic advising by analyzing student performance data, identifying at-risk students, and providing personalized guidance on course selection and career paths.

# District Schedule Redesign

**Real Prompt:** How can we redesign the teaching and learning schedule to creatively reorganize the school day to meet the needs of staff and students?





# Theory of Action

- · We hypothesized that adjusting the schedule would lead to increased collaboration
- · and planning time amongst teachers, lessening stress, and increase retention.

# **Big Idea:**

If... we adjust the schedule to create more planning time for teachers.



Then... there's increased satisfaction in the role and teachers are retained.

# **Big Idea Decomposed:**

If... teachers have a minimum of 200 planning minutes per week:



Then... they have time to collaborate and build expertise.



If... teachers develop expertise and have additional planning time.



Then... teachers are able to scaffold and differentiate for core content and enrichment.



# **Prompt Decomposition**

**Original Prompt:** How can we redesign the teaching and learning schedule to creatively reorganize the school day to meet the needs of staff and students?

**Revised Prompt:** How can we create a fluid and flexible elementary schedule that provides teachers with time for collaboration and planning and students with a personalized learning experience.

**Further Revised Prompt:** How can we create a fluid and flexible elementary school schedule that provides teachers with additional collaboration and planning time, which ultimately will lead to greater job satisfaction.

# **Decomposed Prompt(s):**

- What are critical elements of an elementary school schedule?
- How can you maximize the fluidity and flexibility of the schedule?
  Act as a teacher, suggest changes to the schedule that provides additional collaboration and planning time.
- Act as a teacher, suggest additional changes to the schedule that ensures the schedule leads to greater job satisfaction.
- Act as an elementary school schedule design expert, review the schedule and identity and problems, suggest any changes required in the schedule.
- Act as a principal, review the schedule..... Act as a special education teacher.... Act as a parent... Act as a student.....



# **Considerations and Constraints**

### **School Information:**

- School Name
- School Zipcode
- Name of Principal
- Grades
- Number of students
- Number of core content teachers
- Number of special teachers (art, music, PE, Library)
- Number of STEM Teacher's
- Number of general education instructional assistants

### **Criteria for all students:**

- Number of minutes for lunch
- Number of minutes for recess each day
- Number of minutes each week and number of minutes each day of special content (Monday-Friday) Number of minutes for STEM class once a week
- Number of minutes for core content per week (Monday-Friday)
- Number of minutes for teacher administrative planning per week
- Number of minutes for professional development each week

- 1. Non-negotiables:
  - a. Lunch
  - Recess
  - Resource/specials
  - Start and stop time
- **Teacher Governance**
- Teacher skill set
- Availability of current resources



# **Real World Solutions**

# Example 4<sup>th</sup> Grade Schedule

Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:20 - 9:30	Homeroom	Homeroom	Homeroom	Homeroom	Homeroom
9:30 - 10:25	ELA	Math	ELA	Math	ELA
10:25 - 11:20	Math	I/E Math or ELA	Math	I/E Math or ELA	Math
11:20 - 11:50	Recess	Recess	Recess	Recess	Recess
11:50 - 12:20	Lunch	Lunch	Lunch (200)	Lunch (200)	Lunch (200)
12:20 - 1:15	Science/SS and Writing	ELA	Science/SS and Writing	ELA	Science/SS and Writing
1:15 - 2:10					
2:10 - 3:05	Specials	Specials	Specials	Specials	Specials
3:05 - 3:35	Planning	Planning	Planning	Planning	Planning
3:35 – 3:55	I/E Math or ELA	I/E Math or ELA	I/E Math or ELA	I/E Math or ELA	I/E Math or ELA

All students will rotate through iSTEM course for one day throughout the week (75 min).



# Analysis & Next Steps

# Example 4th Grade Schedule

Content	New Instructional Minutes	Traditional Minutes (weekly)	Difference in Minutes
	(weekly)		(weekly)
ELA	355	500 (with writing)	-145 (Net Loss – 85)
Math	275	300	-25
I/E	210	175	+35
Science/Social Studies	330	275	+55
Writing	60		+ 60

Teacher Planning	<b>New Schedule</b>	<b>Traditional Schedule</b>	Difference in Minutes
Daily with Recess Monitors	105 minutes	50 minutes	+55 minutes daily
Daily without Recess Monitors	85 minutes	50 minutes	+35 minutes daily
Weekly with iSTEM & RM	570 minutes	250 minutes	+320 minutes weekly
Weekly with iSTEM & no RM	470 minutes	250 minutes	+220 minutes weekly

# **School Follow-up**

- 1. iSTEM class once per week for 75 minutes for each grade level
  - Example: 1st grade will rotate to iSTEM class all day on Monday
  - Provide 75 additional minutes of planning a week
- 2. Integrate context (example: writing in science classes)
- 3. Deploy content for 90 minutes every other day
- 4. Departmentalization to reduce planning load



# **AI Variable Analysis**

### **School Information:**

- School Name
- School Zipcode
- Name of Principal
- Grades
- Number of students
- Number of core content teachers
- Number of special teachers (art, music, PE, Library)
- Number of STEM Teacher s
- Number of general education instructional assistants

# **Criteria for all students:**

- Number of minutes for lunch
- Number of minutes for recess each day
- Number of minutes each week and number of minutes each day of special content (Monday-Friday)
- Number of minutes for STEM class once a week
- Number of minutes for core content per week (Monday-Friday)
- Number of minutes for teacher administrative planning per week
- Number of minutes for professional development each week

### **Constraints:**

- Students are at specials when core content teachers are planning (Yes/No)
- Multi-grade classes may or may not exceed 2 grade levels (Yes/No)
- Group classes together to allow for longer periods of uninterrupted instruction for core content (Yes/No)
- Ensure classes are also accessible and appropriate for special education students (Yes/No)
- Ensure special education students have consistent access to their teachers and other resources (Yes/No)
- Ensure teachers have administrative planning time during the school day? (Yes/No)
- Ensure teachers have professional development time during the school day? (Yes/No)
- Do Special Education teachers need to collaborate with grade-level or multi-grade class teachers for special education students during all classes? (Yes/No)
- Are there concerns around overcrowding at the school? (Yes/No)
- Are there concerns around burnout and fatigue of teachers? (Yes/No)
- Are there concerns around socialization for kids? (Yes/No)
- Are there concerns are socialization for teachers? (Yes/No)
- Any notable transportation related concerns?
- Any notable facility related conflicts?
- Any notable staff related conflicts?
- Any notable accessibility related concerns?
- Number of students that can attend lunch at the same time
- Number of students that may attend recess at the same time
- Stress levels of administrative staff (High, Medium, Low)
- Stress levels of teaching staff (High, Medium, Low)
- Stress levels of students (High, Medium, Low)



# **Additional Considerations:**

- Availability of technology and resources for both teachers and students
- Parental involvement and availability for communication and engagement with the school
- Availability of after-school programs or resources for students who need additional support or enrichment
- Language barriers or diversity considerations for students and families
- School budget and funding constraints for implementing changes to the schedule or additional resources needed to support students and staff.
- Are there any specific academic, social-emotional, or behavioral needs that need to be addressed in the schedule?
- Number of students who require one-on-one support or accommodations throughout the day?
- Are there any staff members who require specific accommodations or support in order to effectively carry out their roles?
- Are there any staff members who require additional professional development or training in order to support student needs or improve instruction?
- Are there any community partnerships or resources that could be leveraged to support student learning or enrichment?
- Are there any community events or activities that should be taken into consideration when designing the schedule?
- How will the success of the new schedule be assessed and evaluated over time?
- What data or metrics will be used to measure progress and make adjustments as needed?

# Data or metrics to evaluate schedule redesign:

- (Yes/No) Student Achievement: This could include measures of academic performance such as test scores, grades, and graduation rates. It could also include measures of social-emotional development, such as student attendance, engagement, and behavior.
- (Yes/No) Teacher and Staff Satisfaction: This could include surveys or feedback from teachers and staff members about their perceptions of the new schedule, workload, and resources.
- (Yes/No) Parent and Community Engagement: This could include surveys or feedback from parents and community members about their perceptions of the new schedule, communication, and engagement with the school.
- (Yes/No) Attendance and Dropout Rates: This could include tracking attendance rates and dropout rates before and after the schedule redesign to determine if there are any changes in student attendance or retention.
- (Yes/No) Student and Staff Health and Wellness: This could include measures of student and staff health and wellness, such as physical activity levels, stress levels, and overall well-being.
- (Yes/No) Resource Utilization and Efficiency: This could include measures of resource utilization and efficiency, such as the amount of time teachers spend on administrative tasks, the amount of time students spend on non-academic activities, and the utilization of technology and other resources.
- (Yes/No) Budget and Funding: This could include tracking the costs associated with implementing the new schedule and the impact on the school's overall budget and funding.



# Microsoft Learn course on AI for Educators

Http://aka.ms/AlforEducators

# Platform, management, and security



Microsoft's platform, management, and security solutions ensure that devices are secure, up-to-date, and compliant with organizational policies and include tools that protect network and data from unauthorized access to maximize teaching and learning.



Defend student's and educator's devices and data against evolving threats online and offline with the most secure Windows ever.



Simplify management and deployment while optimizing device performance, policies, and class rostering.



Protect access and identities, thwart attacks, and ensure compliance with world class security tools.

### **PLATFORM**



Windows 11



**Education Devices** 

### **MANAGEMENT**







School Data Sync

### **SECURITY**



Microsoft

Defender







Microsoft Sentinel



Microsoft Purview

# Windows 11 Pro Education for the best experience

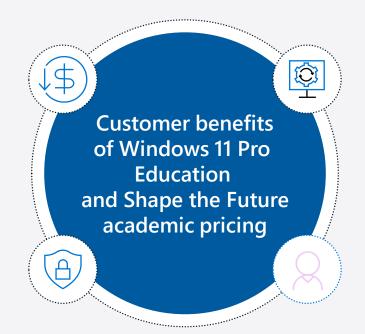
The most secure, accessible Windows for learning in the classroom and beyond

# **Lowest Price**

The lowest pricing on Windows 11 Pro Education through Shape the Future

# Security

Protect privacy and devices from unauthorized users and apps with security enabled by default.



# Manageability

Approve, schedule, and monitor Windows Updates through the cloud, from anywhere without disrupting learning.

# **Accessibility**

Integrated learning tools support students of all abilities and help students master reading, writing, and math.

# EDU Windows + Microsoft 365 TCO Research

### Research Overview

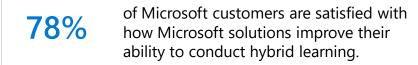
An independent study by Concentrix (2023) looked to create a comprehensive analysis of the total cost of ownership (TCO) of Microsoft solutions (devices, software applications, and deployment and management tools), for commercial education customers.

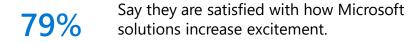
# **Insights**

- Microsoft has the lowest total cost of ownership over five years when compared with Google and Apple.
  - For Entry device ecosystems, Microsoft delivers 6% lower TCO than Google, and 9% lower TCO than Apple.
- Microsoft delivers on features customers care about most including accessibility, security and scalability, advancing learning, student well-being, and sustainability.
- Microsoft has the security and classroom tools that drive real benefits and better prepare students for the technical workforce
- Microsoft is more transparent about the total costs of deploying and managing technology solutions.
  - Anecdotal reports from customers interviewed found soft costs can represent as much as 70% of the total cost of ownership of an educational technology ecosystem over 5 years.
- > Schools using Microsoft indicate they are satisfied with the features and outcomes Microsoft delivers, including benefits of increased security, improved engagement and preparedness, and built-in accessibility.

81%	of schools using Microsoft say they are satisfied with how Microsoft handles privacy.

<b>79</b> %	of schools using Microsoft say they ar satisfied with how Microsoft solutions improve student engagement
	improve student engagement





Note: Additional research findings and customerready assets will be provided in early FY24



# Forrester TEI Report | Education

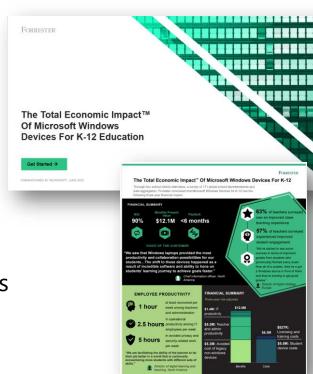
The Forrester TEI report is customer-ready and is posted for public access here.

The Total Economic Impact™ Of Microsoft Windows Devices For K-12 Education

# Forrester TEI Study | Internal Links on DPS GTM

- Microsoft EDU TEI study
- Guidance and approved claims
- <u>Infographic</u>

These assets are available for partners on Device Partner Center



### Windows Device For K-12 Benefits



Greater student performance:
63% of teachers surveyed saw

an improved class teaching experience



Greater student engagement:

57% of teachers saw improved student engagement



Teach and administration productivity increase:

1 hour per employee per week



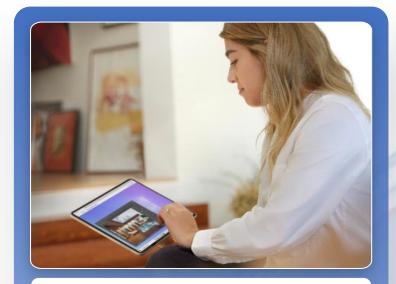
IT team time savings:

2.5 hours per employee per week



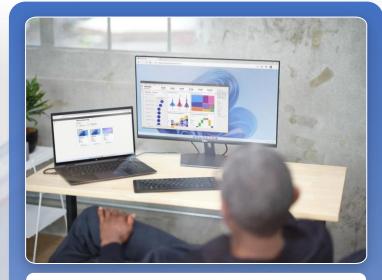
Avoided privacy and security-related work: 5 hours per employee per week

# Consider a transition to Windows 11 and Copilot



Windows 10 End of Support\*

Stay Secure, Focus on learning, and Control Costs



Secure and scalable IT

Built-in advanced encryption, data and credential protection



Value to advance learning

Power of AI with Copilot and other AI-powered features to enhance productivity and learning

Thank you!

