



Sage Oak AI Nexus

Where Innovation, Instruction, and Intelligence Converge

Leading the future of AI-integrated education



Four Pillars of AI Excellence

Efficiency

Streamline and Automate

Innovation

Custom Powered AI Tools and AI Driven Programs



Student Outcomes

Achievment, Equity, and Wonder

Organizational Transformation

Fundamental Redesign

Pillar One:

Efficiency

Streamline & Automate

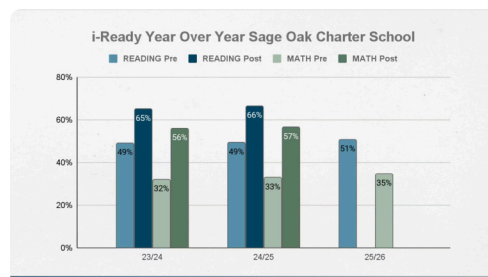
Streamlining Systems to Power Innovation

Optimize Sage Oak's teaching, assessing, and assigning systems to ensure consistency, clarity, and scalability across the organization. **By creating efficient structures, we free up capacity for educators and students to focus on deeper learning and future-ready skills.**

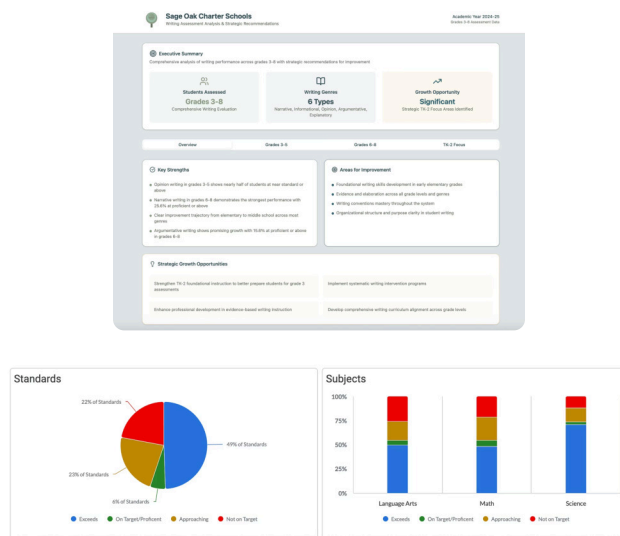
1

Data Dashboards

NOW...



FUTURE...



2

Workflow Optimization

NOW...

[illegible]

FUTURE...

Primary Mathematics 1A and 1B - US Edition - Pacing Guide

Grade 1 • Math

Sage Oak Charter Schools • School Year 2025

Period	Dates	Days	Module/Content	Standards	Quick Check
LP 1	8/25 9/19	1st	<p>Module 1: Unit 1 - Numbers 0 to 10 & Unit 2 - Number Bonds</p> <p>➤ Rationale</p> <p>Module 1 introduces foundational number sense (0-10) and number bonds, aligning with 1.ME1.1. During the 1.ME1.1 Quick Check, learners early assessment of these core concepts. This period has 1 Quick Check to maintain an even distribution.</p> <p>➤ Standards Alignment Details</p>	$1.ME1.1$	1.ME1.1
LP 2	9/22 10/17	1st	<p>Module 2: Unit 3 - Addition</p> <p>➤ Rationale</p> <p>Module 2 focuses on addition, introducing 1.OA.1 (word problems) and reinforcing 1.OA.4 (addition within 20). The 1.OA.1 Quick Check is placed here as it is the first module to explore word problems, assessing students' ability to solve addition word problems. This period has 1 Quick Check.</p> <p>➤ Standards Alignment Details</p>	$1.OA.1$	1.OA.1
LP 3	10/20 11/14	1st	<p>Module 3: Unit 4 - Subtraction</p> <p>➤ Rationale</p>	$1.OA.2$	1.OA.2

3

Automated Portfolios

NOW...

CHARTER SCHOOLS		Other Curricular and Student Learning Outcomes	
ELA and Math Progress Toward Standard		OE 12 or more correct operations	
OT On target to meet or exceed grade level standards	Semester 1 (Fall)	AE Approaching expectations	Semester 1 (Fall)
AT Approaching target to meet grade level standards	OT	NE Not approaching expectations	OT
NT Not on target to meet grade level standards	OT	AE Approaching expectations	OT
X Correct will be addressed second semester	OT	NE Not approaching expectations	OT
GP Progress reported on goals and objectives (more advanced students only)	OT	NE Progress reported on goals and objectives (more advanced students only)	Semester 1 (Fall)
English Language Arts	Semester 1 (Fall)	Mathematics	Semester 1 (Fall)
Literature	OT	Operations and Algebraic Thinking	OT
Informational Text	OT	Number and Operations in Base 10	OT
Foundational Skills	OT	Measurement and Data	OT
Writing	OT	Geometry	OT
Speaking and Listening	OT		
OT	OT	Student Learning Outcomes	Semester 1 (Fall)
Other Curricular Areas	Semester 1 (Fall)	Service	OE
Science	OE	Accountability	OE
Social Studies	OE	Program Mismatch	OE
Special Interest	X	Excellence	OE
Disrupted Learning	OE		

FUTURE...

W	N.NS.1	Know that numbers that are not rational are called irrational. Understand informally...	✓
W	N.NS.2	Use rational approximations of irrational numbers to compare the size of irrational num...	✓
W	EE.2	Use square root and cube root symbols to represent solutions to equations of the form $x...$	✓
W	EE.1	Know and apply the properties of integer exponents to generate equivalent numerical exp...	✓
A	EE.4	Perform operations with numbers expressed in scientific notation, including problems wh...	✓
W	EE.3	Use numbers expressed in the form of a single digit times an integer power of 10 to est...	✓
W	EE.5	Graph proportional relationships, interpreting the unit rate as the slope of the graph...	✓
W	EE.6	Use similar triangles to explain why the slope m is the same between any two distinct $p...$	✓
W	EE.7	Solve linear equations in one variable.	✓
W	EE.7.a	Give examples of linear equations in one variable with one solution, infinitely many so...	✓
W	EE.7.b	Solve linear equations with rational number coefficients, including equations whose sol...	✓
W	EE.8	Analyze and solve pairs of simultaneous linear equations.	✓
W	EE.8.a	Understand that solutions to a system of two linear equations in two variables correspo...	✓
MT	EE.8.b	Solve systems of two linear equations in two variables algebraically, and estimate solu...	✓
NS	EE.8.c	Solve real-world and mathematical problems leading to two linear equations in two varia...	✓
W	A.F.1	Understand that a function is a rule that assigns to each input exactly one output. The...	✓
W	F.F.3	Compare properties of two functions each represented in a different way (algebraically...	✓

Pillar Two:

Innovation

Fully integrated, Custom AI-Powered Tools


Building a Future AI Academy to improve student outcomes


Elevate Sage Oak by pioneering an AI Academy **powered by innovative, in-house developed curriculum that sets new standards for AI-integrated education.**

1


Students Now....


Let's make learning math fun and exciting!


**Explore**
Discover new math concepts through interactive learning!


**Play**
Practice what you've learned with fun questions!

Your Progress

**Stars Earned**
24

**Lessons Completed**
8

**Level**
3

 mathapp.sagestudent.org

Math Pathways – Gamified Math Le...

Future....

2

Teachers Now...

Power Standards by Grade Skill Finder

Search standards or concepts (e.g., adding, multiplica) All Categories Filter

Kindergarten 1st Grade 2nd Grade 3rd Grade 4th Grade 5th Grade 6th Grade 7th Grade 8th Grade Algebra I

Kindergarten Power Standards

Displaying 9 power standards for Kindergarten mathematics curriculum.

K.CC.1

I can count to 100 by ones and tens.

Counting & Cardinality

K.CC.4


I can show a group of objects with the correct number.

Counting & Cardinality

K.CC.7

I can compare two numbers between 1 and 10.

Counting & Cardinality

 teacherportal.sageoak.systems


Power Standards Navigator


Future...


3

Parents Now...

Power Standards Resources

**Enrichment**
Extends learning beyond grade level for deeper challenge. These activities are designed for our advanced learners.


**Reinforcement**
Provides extra practice to strengthen skills. These activities are designed for our students working at grade level.

**Remediation**
Targets gaps to help master missed skills. These activities are designed for students who may be below grade level or have skill gaps in the area of math.

Kindergarten Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 6

K.CC.1 – I can count to 100 by ones and tens.

Available worksheets for this standard

 Power Standards Parent Portal

Power Standards Parent Portal – S...

Future...

Made with GAMMA

Pillar Three

Student Outcomes

Achievement & Equity

Driving Achievement Through Personalization and Real-time Insights

With streamlined systems (Pillar One) and innovative AI-powered tools (Pillar Two) in place, Sage Oak is positioned to elevate measurable student learning. **Student outcomes become the clearest validation of our work:** every system and innovation is designed to enhance growth, mastery, and student achievement.

1

Personalized Learning

AI-driven individualization that meets each student where they are and accelerates growth.

2

Real-Time Adaptation

Data-driven insights and predictive analysis enables true one-to-one customization.

3

Equity Focus

AI tools designed to close achievement gaps and ensure equitable access to high-quality education.

Pillar Four

Organizational Transformation

Fundamental Redesign

Scaling Excellence to Redefine Education

The Outcome: Organizational Transformation is the culmination of the first three pillars—a holistic evolution that establishes Sage Oak not just as a school, but as a **destination and model for what the future of education can be.**

1

System Redesign

Reimagining educational structures and processes from the ground up with AI at the center.

2

Integrated Platforms

Comprehensive ecosystems that connect all aspects of the educational experience.

3

Cultural Shift

Fostering an organizational culture that embraces AI-driven innovation and student centered applications.

AI Nexus Team Structure

Central hub-and-spoke structure with specialized directors leading strategic initiatives



Director of Technology

Managing technical infrastructure and implementation



Director of AI Strategy & Innovation

Leading strategic vision and innovation initiatives



Director of Learning & Student Achievement

Driving instructional excellence and student outcomes



Operational Optimizer for Scalable and Secure Innovation

Ensure the secure, scalable, and compliant implementation of all AI technologies.



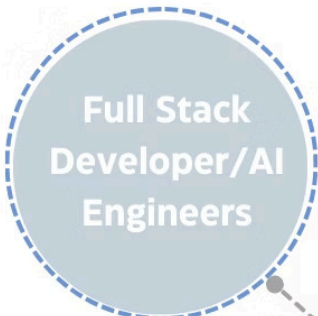
Strategic Integrator, Vision Steward, & Cross-Department Catalyst

Ensure AI is implemented holistically, responsibly, and in alignment with Sage Oak's vision.



Academic Strategist for Innovation & Student Outcomes

Ensures instructional strategies, curriculum design, and student performance remain the central driver of AI implementation.



Design, build, and maintain AI-powered tools



Collaborate with developers to align AI tools with standards, assessments, and best practices

Instructional Focus in the Nexus

Led by the Director of Learning & Student Achievement, these implementation strands within the Student Achievement lane of the Nexus drive curricular transformation and instructional excellence.

1

AI Literacy Standards (K–12)

Develop robust AI literacy and fluency standards that prepare students for an AI-integrated world through backward design from college and career readiness outcomes.

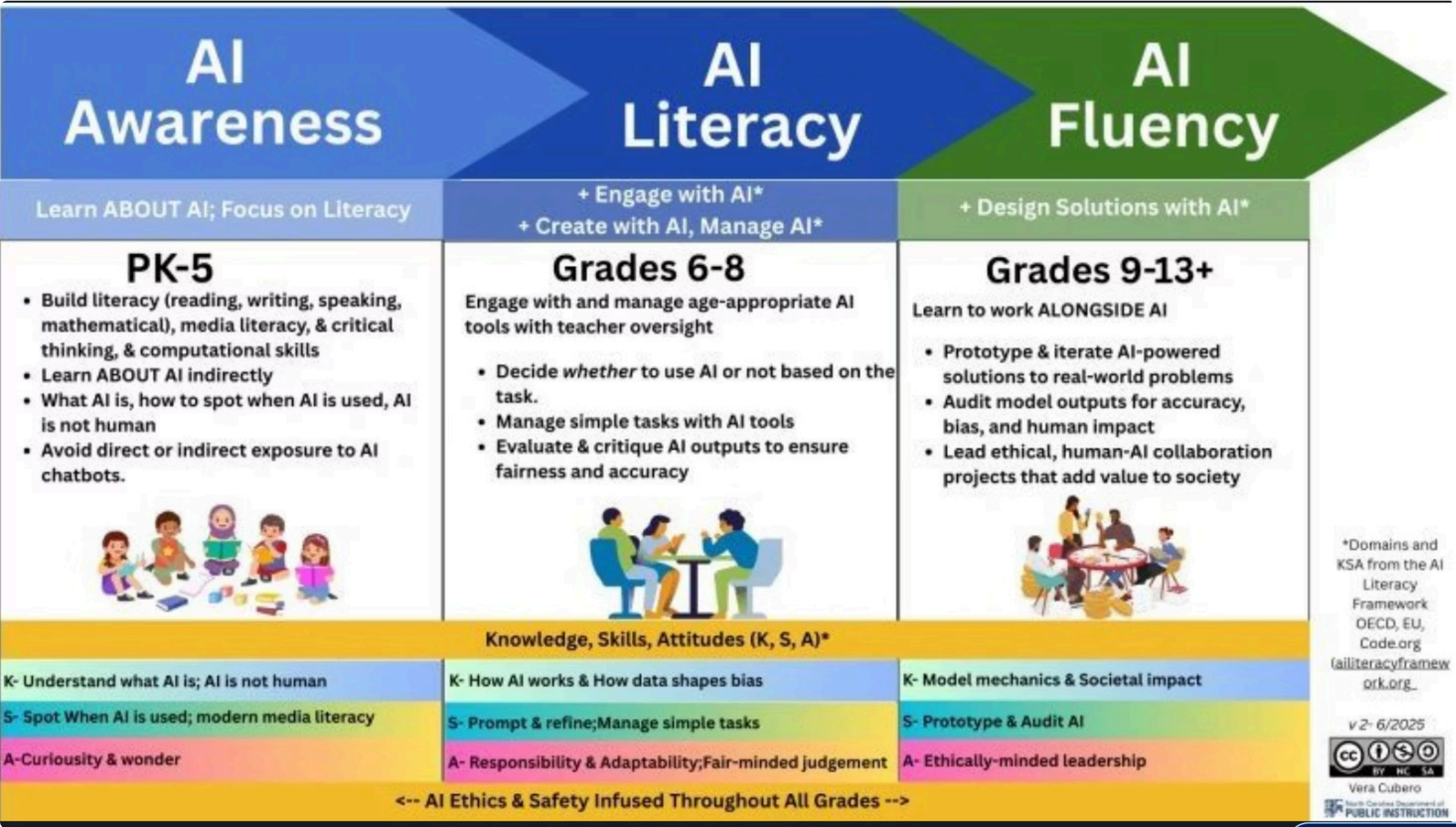
- Backward design from college and career readiness outcomes
- Deep understanding beyond surface-level tool usage
- Authentic opportunities to apply AI in projects and problem-solving

2

Measuring AI Tool Impact on Instruction

Establish clear metrics and protocols to measure educational effectiveness of AI tools before and after implementation.

- Evidence-based decisions that resist flashy technologies
- Resource optimization toward proven solutions
- Continuous improvement through ongoing data cycles



*Domains and KSA from the AI Literacy Framework
OECD, EU, Code.org
(ailliteracyframew ork.org_

v 2- 6/2025


Vera Cubero
North Carolina Department of PUBLIC INSTRUCTION

Smarter Innovation, Without Reinvention

Comprehensive collection of AI implementation guides, toolkits, and educational frameworks to support our AI integration journey.



AI Implementation Recommendations and Considerations

[View Resource](#)



AI Resources

[View Resource](#)



AI in Education

[View Resource](#)



AI Guide for Students

[View Resource](#)



AI Student Learning Framework

[View Resource](#)



TeachAI Toolkit

[View Resource](#)