



# NCED CONNECT SYMPOSIUM

# Using GenAI Tools to Develop POG Durable Skills

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If you are not registered for this course in Sched we respectfully ask you to sign up for another time to attend this session or wait outside the door to see if there is available seating.

<https://go.ncdpi.gov/admnp>



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Preparing our students for the next phase of their lives means giving them two things at once: first, the tool set that all people need to function in the 21st century, and second, the opportunities and the access to those opportunities to develop themselves so that they can choose as well as be prepared for wherever they want to go after they graduate from high school.

-Mo Green, State Superintendent

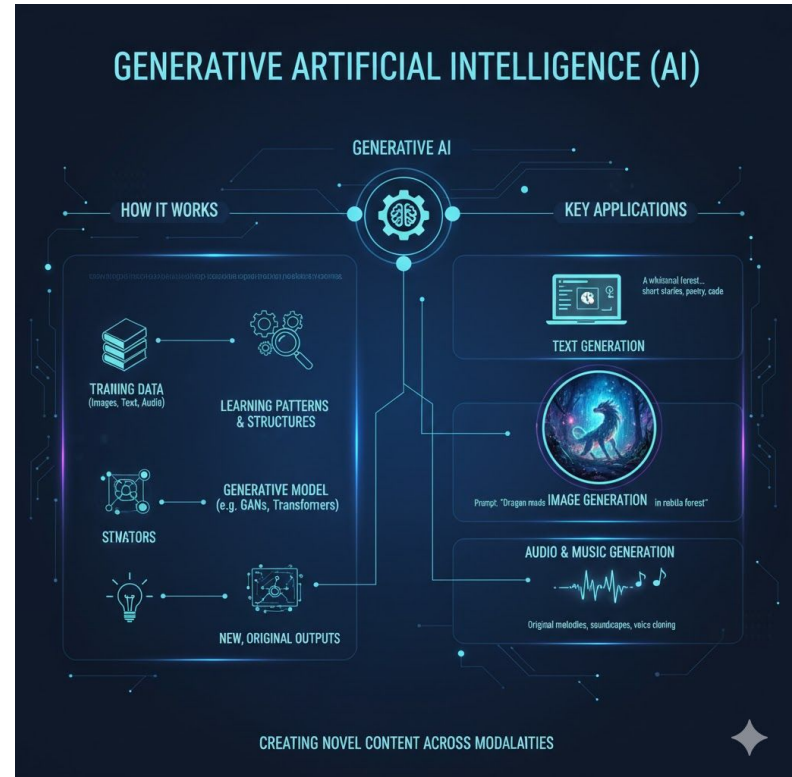


# What GenAI?

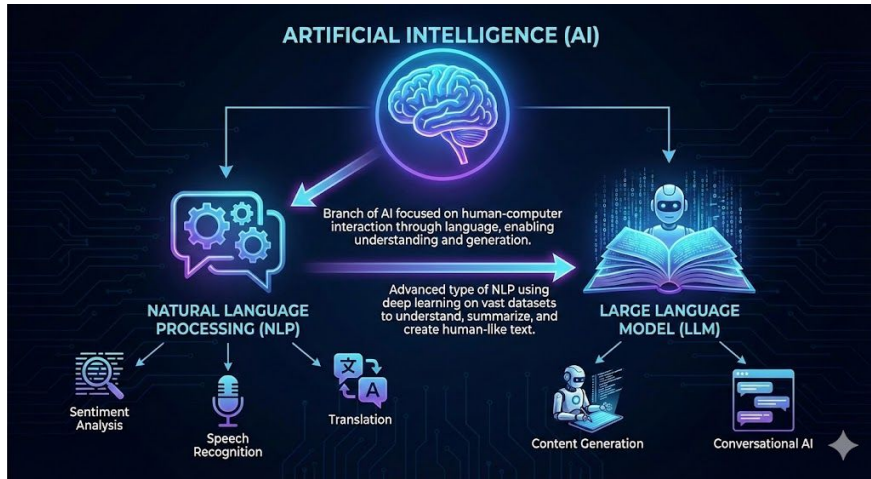
Making machines think like people.

Generative AI uses information from the internet to create new content:

- Text
- Audio
- Pictures
- Videos
- Computer Code



# Common AI Terms to Know:



## LLM (Large Language Model):

- a powerful deep learning model trained on massive text datasets to understand, generate, and work with human language

## NLP (Natural Language Processing):









- a field that teaches computers to understand, interpret, and generate human language found in chatbots

# At what point does GenAI strengthen student abilities versus replacing them?






- The usage of AI tools is to serve as a companion to learning when to use them appropriately. They modify and enhance learning to serve for the whole student.
- Learning subgroups, such as ELL and students with disabilities, are enabled to thrive under the use of GenAI.

**If your question is Google-able, it's not a good question.  
If your assessment is AI-able, it may not be a good assignment.  
-Nicki Slauch**

# GenAI Is Disrupting Every Industry

 Healthcare  Faster diagnosis & drug discovery	 Professional Services  Research, writing & analysis at scale	 Retail & ECommerce  Hyper-personalized customer experiences	 Software & IT  Code generation & testing	Agriculture  AI-driven crop monitoring & yield optimization
 Manufacturing  AI-driven design & predictive maintenance	 Media & Entertainment  AI-generated content & visual effects	 Supply Chain & Logistics  Smarter forecasting & automation	 Finance & Insurance  Risk analysis & fraud detection	Insurance  Risk assessment & fraud detection & policy costs

# What Work Is Being Transformed?

-  Analyze  
→ AI synthesizes massive data
-  Create  
→ Drafts, designs, visuals
-  Decide  
→ Scenario modeling & prediction
-  Manage  
→ Scheduling, reporting, workflows
-  Communicate  
→ Personalized messaging at scale

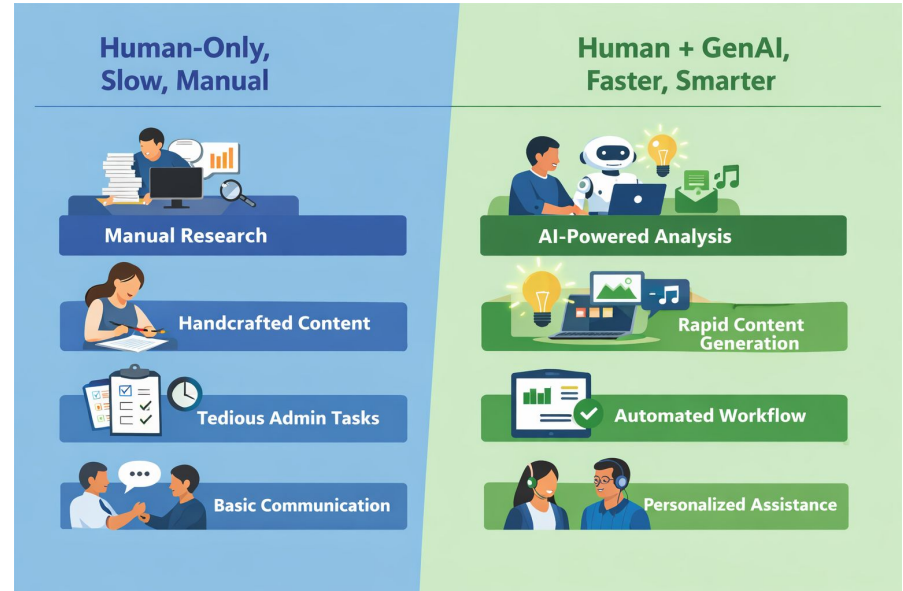


Image created  
using ChatGPT

# Why Durable Skills Matter More Than Ever

## Human Skills (Endure Over Time)

- Critical Thinking
- Creativity
- Communication
- Collaboration
- Ethical Judgment
- Adaptability

## AI Capabilities (Accelerate Work)

- Speed
- Pattern Recognition
- Information Recall
- Automation

**Educators makeup 3.4 % of the workforce and educate 100% of the population**  
**-[USA Facts](#)**

# NC Portrait of a Graduate Initiative

Student learning experiences should be rigorous and prepare students for post-secondary academia and careers choices. With AI tools, students can seamlessly cultivate essential durable skills needed to thrive in the 21st century and beyond.

- Google Gemini (GEMS)
- Notebook LM
- Canva AI
- Say What You See (Google)
- Claude
- Perplexity
- Skill Struck
  - Chat for Schools
  - Launchpad (Coding)

# Adaptability

Equip students with the resilience and flexibility to navigate rapid changes and challenges in their academic and professional journeys. AI platforms like adaptive learning systems tailor educational experiences to each student's pace and progress, fostering adaptability in diverse learning environments.

## Lesson Plan: The Adaptability Blueprint

**Topic:** Cognitive Adaptability and Collaborative AI Literacy

**Target Grade Level:** Middle/High School (Ages 12-18)

**Duration:** 45 Minutes

**Technology Integration:** Claude (Anthropic) AI Chatbot

### I. Learning Objectives

- **Adaptability:** Students will identify strategies to pivot successfully when faced with unexpected changes.
- **AI Literacy:** Students will evaluate AI-generated advice for relevance, tone, and practicality.
- **Synthesis:** Students will demonstrate the ability to "Remix & Revise" AI output to create a personalized action plan.

### II. Materials & Setup

- One laptop/tablet per student or pair.
- Access to Claude (claude.ai).
- Shared digital whiteboard (e.g., Padlet or Google Jamboard) or physical sticky notes.

### III. Lesson Sequence

#### 1. Opening: The Pivot Prompt (5 Minutes)

- **Prompt Setup (1 min):** Present the soccer scenario: "You trained for months as a striker, but the coach moves you to defense right before the championship. How do you adapt?"
- **AI Response (2 min):** Students log into Claude. They enter the prompt: "I am a soccer striker being moved to defense for a big game. How can I quickly adapt my mindset and skills to perform well in this new role?"
- **Remix & Revise (2 min):** Students must change at least two pieces of Claude's advice to

# Collaboration

Foster teamwork and effective communication skills essential for collaboration in today's interconnected world. AI-driven collaboration platforms facilitate seamless group work, allowing students to collaborate on projects, share ideas, and solve problems collectively across digital and physical spaces.

## Lesson Plan: Harmonizing Ideas – AI-Powered Lyricism

**Role:** Instructional Technology Facilitator

**Grade Level:** 6th–12th Grade (Adaptable)

**Duration:** 45 Minutes

**Technology Integration:** Suno AI (Web-based AI Music Generation)

**Subject Integration:** ELA, Social Studies, or Science (depending on topic selection)

### Lesson Objective

Students will demonstrate an understanding of thematic concepts and vocabulary by collaborating in small groups to generate AI-assisted music. Students will analyze how specific keywords influence AI output and reflect on the collaborative creative process.

### Materials Needed

- Devices with internet access (1 per group)
- Access to Suno.com (ensure school filter clearance)
- Shared "Topic & Vocabulary" Digital Choice Board
- Guided Reflection Worksheet

### I. Anticipatory Set (7 Minutes)

**Hook:** Play a 30-second AI-generated song snippet about a mundane school topic (e.g., "The cafeteria pizza").

#### Rigorous Leading Questions:

1. *How does the marriage of melody and lyrics change our emotional connection to a factual topic?*
2. *If we give an AI five words, how does it "know" the tone or mood those words imply?*

# Communication

Develop strong written and verbal communication skills critical for conveying ideas, collaborating with peers, and engaging with diverse audiences. AI writing assistants provide real-time feedback and support in grammar, style, and clarity, empowering students to express themselves confidently and effectively.



Learn more about  
BlueThread here



# Critical Thinking

Cultivate the ability to analyze, evaluate, and synthesize information to make informed decisions and solve complex problems. AI-powered learning platforms offer interactive activities and simulations that challenge students to think critically, reason logically, and apply knowledge creatively.

## Lesson Plan: The AI Fact-Check Challenge

**Target Grade:** 6th - 8th Grade (Middle School)

**Timeframe:** 45 Minutes

**Tool:** Google Gemini

### 1. Overview & Objectives

In this lesson, students will use Google Gemini to generate informational claims and then use traditional lateral reading strategies to verify the accuracy of those claims. This lesson addresses **ISTE Standards for Students: Digital Citizen (2b)** and **Knowledge Constructor (3b, 3c)**.

#### Learning Objectives:

- Students will identify that AI can generate "hallucinations" (false information presented as fact).
- Students will verify AI-generated content using at least two reliable secondary sources.
- Students will reflect on the societal impact of unverified AI information in social media and news.

### 2. Materials & Setup

- One 1:1 device per student or group (2-3 students).
- Access to [Google Gemini](#).
- The "Fact-Check Log" (see below).
- Teacher Dashboard/Projector.

### 3. The 45-Minute Workflow

**Introduction: The "Magic" vs. The "Machine" (7 Minutes)**

# Empathy

Nurture empathy and understanding of diverse perspectives and experiences essential for building meaningful relationships and fostering inclusivity. AI-driven virtual reality simulations and interactive experiences provide immersive opportunities for students to step into others' shoes and develop empathy in diverse contexts.

## Lesson Plan: GenAI Empathy Challenge – "See Through Their Eyes"

**Grade Level:** 5th Grade

**Duration:** 45 Minutes

**Subject:** Instructional Technology / Social-Emotional Learning (SEL)

**Tools:** School AI (Empathy Space), Canva Magic Studio or Adobe Firefly (Text-to-Image)

### I. Learning Objectives

- **Empathy:** Students will demonstrate an understanding of empathy by engaging in a guided AI dialogue and visualizing the lived experiences of others.
- **Technology:** Students will navigate an AI "Space" to gather information and use those insights to craft descriptive image prompts.
- **Critical Thinking:** Students will analyze how AI can act as a "perspective-taking" tool to deepen human connection.

### II. Essential Questions (Rigorous & Age-Appropriate)

1. How can talking to an AI persona help us understand the feelings of a real person we've never met?
2. What details do we need to notice to truly "see" through someone else's eyes?
3. How can we use generative tools to advocate for those whose stories are often left out?
4. Can technology make us *more* human by helping us practice kindness?

### III. Lesson Sequence

#### 1. Introduction: The Perspective Shift (7 Minutes)

- **Hook:** Present the quote: "You never really understand a person until you consider things

# Learner's Mindset

Instill a growth mindset and lifelong attitude, encouraging students to embrace challenges, persist through setbacks, and continuously seek opportunities for growth. AI-enabled personalized learning platforms adapt to students' individual needs and learning styles, empowering them to take ownership of their learning journey and pursue their passions.



## Learner's Mindset

### Prompt:

"Create a student-centered lesson plan for [grade level, e.g., 3rd grade, 8th grade, or 11th grade] on the topic of [insert subject/topic]. The lesson should last approximately [45 minutes / 90 minutes]. Include:

1. **Learning objectives** – What students should know or be able to do by the end of the lesson.
2. **Instructional approach** – A student-centered method (e.g., inquiry-based, project-based, discussion-driven).
3. **Activity** – Include a group activity or an independent activity that engages students actively with the topic.
4. **Assessment** – A way to measure student learning (formative or summative), such as a quiz, presentation, project, reflection, or peer feedback.
5. **Time breakdown** – Suggest how much time to spend on each part of the lesson (introduction, activity, wrap-up, assessment).
6. **Differentiation** – Optional strategies to support diverse learning needs.

Please format the output as a lesson plan with headings and clear step-by-step instructions."

# Personal Responsibility



## Personal Responsibility

Foster accountability and self-discipline in managing academic and personal obligations. AI tools like task management apps and digital planners help students organize their tasks, track progress, and prioritize responsibilities, empowering them to take ownership of their learning and success.

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# Implementing AI In Your Classroom

- Start with a clear policy that lets students know how you expect them to use AI in your classroom
  - [Rubric 6-12](#)
  - [Rubric K-5](#)
- Establish learning objectives for students to follow
- Choose appropriate AI tools that can accomplish your objective
- Teacher modeling
- Prepare students for AI interaction
  - AI literacy
    - prompting and iteration
    - fact checking (hallucinations)
    - PII
  - Monitor and guide student use of AI tools
  - Integrate AI-assisted work with traditional teaching methods

# Resources

[AI in Education by Stacy Lovdahl](#)

[AI for Education](#)

[Teacher Server](#)

[NC AI Collaborative Deliverables](#)

[EDSAFE AI Alliance](#)

## PEOPLE TO FOLLOW

- Ethan Mollick - Professor at the University of Pennsylvania's Wharton School, discusses the impact of AI on education, work, and innovation
- Simon Willison - web developer and blogger, shares AI advances and technical explanations
- Pat Yongpradit - TeachAI, shares frequent education-related GenAI updates
- Leon Furze - Education consultant and author, discusses practical AI strategies for the classroom
- Eric Hudson - Education consultant and former teacher, writes about the intersection of AI and pedagogy

# Resources

## NEWSLETTERS:

- Superhuman
- The Deep View - daily, 5-minute overview of innovations, news, and emerging AI trends
- The Rundown - daily coverage of AI developments, trends, and practical applications
- DIGITAL STORM weekly

## PODCASTS

- My EdTech Life - Alfonso Mendoza Jr., M.Ed. covers AI trends, tools, and their impact on education, interviewing a wide range of educators, creators, and researchers ·
- AI in Education - Aussies Dan Bowen and Ray Fleming explore what AI is, how it works, and its applications in education ·
- Pioneers of AI - Dr. Rana el Kaliouby hosts a broader discussion of AI and how it is changing the way we live across a variety of fields ·
- Everyday AI - Jordan Wilson releases daily episodes covering AI industry
- Hayley Spira-Bauer - host of the Learning Can't Wait podcast

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**After each session we ask that you please provide feedback in SCHED.**

