
ENGAGE
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WHAT IS YOUR PLAY?

TECHNOLOGY APPLICATIONS

INTEGRATING TECH APPS INTO K-5 CONTENT AREAS

ENGAGE 2026

https://tinyurl.com/2dhrv7cw

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Northwest ISD

Professional Learning Expectations

A Culture of Learning

P PARTICIPATE POSITIVELY

L LISTEN FOR AND SHARE DIFFERENT PERSPECTIVES WITH RESPECT

N NAVIGATE LEARNING WITH A GROWTH MINDSET

I IDENTIFY HOW YOU WILL APPLY THIS LEARNING TO YOUR WORK

S SET GOALS AND PLAN NEXT STEPS

D DEMONSTRATE PROFESSIONALISM

TECHNOLOGY APPLICATIONS

Sarah Jones

Justin Elementary

Library Media Specialist

Learning Targets

I will…	Learn about the Technology Application standards
So I can…	Integrate them into my K-5 content areas
I'll know I have it when…	Evaluated the Tech App Standards and compared them to my content standards making decisions on how to integrate the two standards.

Technology

APPLICATIONS

Technology Applications TEKS: The 5 Strands

1.

Computational Thinking

2.

Creativity & Innovation

3.

Data Literacy, Management, and Representation

4.

Digital Citizenship

5.

Practical Technology Concepts

TECH APPS TEKS SORT

05:00

STRAND 1: COMPUTATIONAL THINKING			
[keywords]	[keywords]	[keywords]	[scenario]

STRAND 2: CREATIVITY AND INNOVATION			
[keywords]	[keywords]	[keywords]	[scenario]

STRAND 3: DATA LITERACY, MANAGEMENT, AND REPRESENTATION			
[keywords]	[keywords]	[keywords]	[scenario]

STRAND 4: DIGITAL CITIZENSHIP			
[keywords]	[keywords]	[keywords]	[scenario]

STRAND 5: PRACTICAL TECHNOLOGY CONCEPTS			
[keywords]	[keywords]	[keywords]	[scenario]

understand the role of technology throughout history and its impact on societies

A 1st grader is creating a storyboard with steps to take to solve the problem of not having anyone to play with at recess.

decomposition, pattern recognition, abstraction, and algorithms

digital footprints and digital etiquette

TEKS TERMS

Strand

Substrand

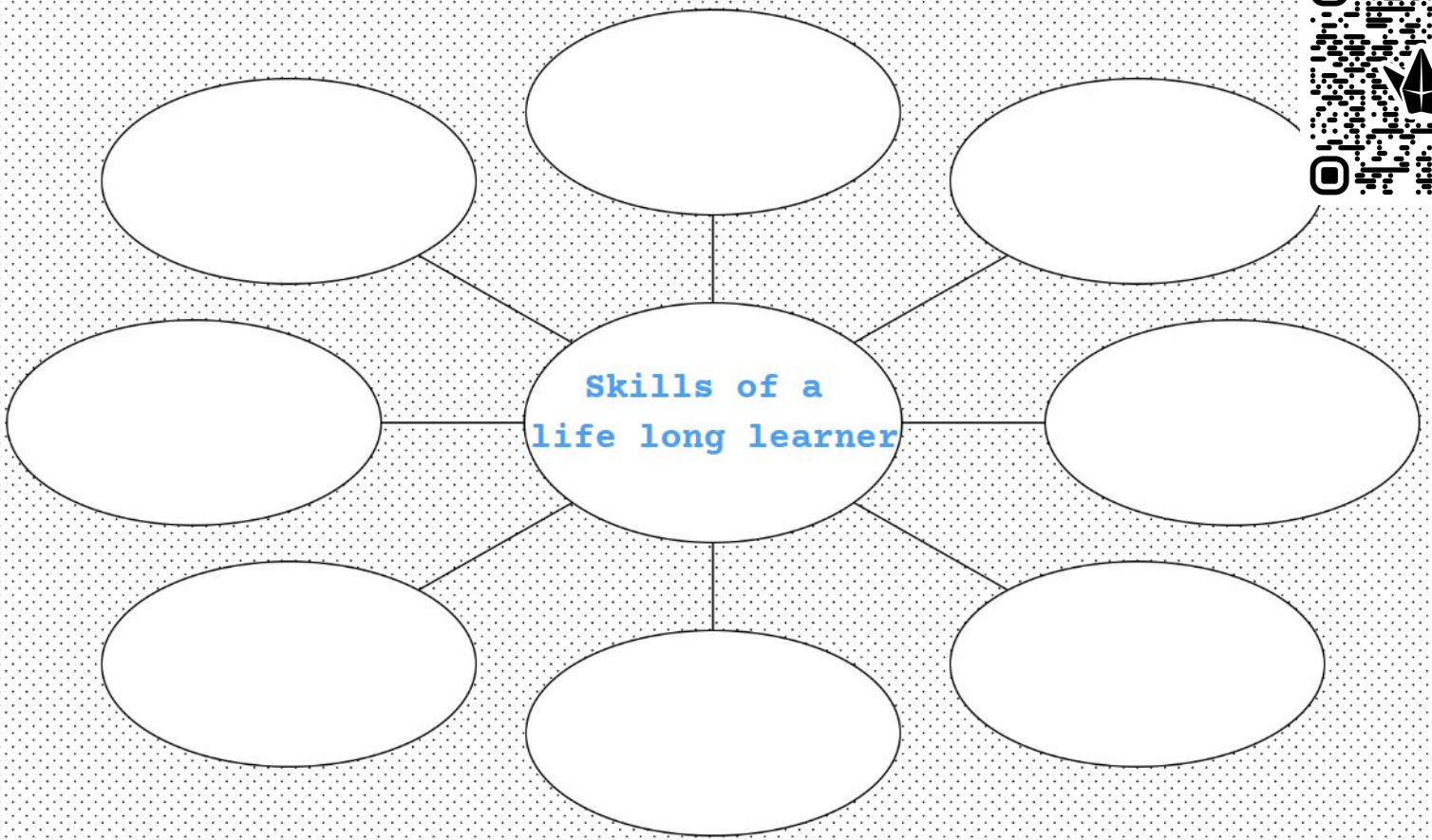
Knowledge and Skills Statement

Student Expectations

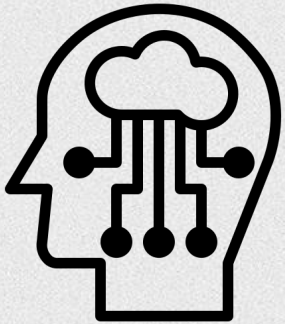
STRAND: CREATIVITY AND INNOVATION								
Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:						**Creativity and innovation--innovative design process.** The student takes an active role in learning by using a design process and creative thinking to develop and evaluate solutions, considering a variety of local and global perspectives. The student is expected to:		
K.3(A) practice personal skills, including following directions, needed to successfully implement design processes; and	1.3(A) practice personal skills and behaviors, including following directions and mental agility, needed to implement a design process successfully; and	2.3(A) demonstrate personal skills and behaviors, including effective communication, following directions, and mental agility, needed to implement a design process successfully; and	3.3(A) explain the importance of and demonstrate personal skills and behaviors, including metacognition, effective communication, following directions, and mental agility, needed to implement the design process successfully; and	4.3(A) explain the importance of and demonstrate personal skills and behaviors, including problem solving and questioning, effective communication, following directions, mental agility, and metacognition, that are needed to implement a design process successfully; and	5.3(A) explain the importance of and demonstrate personal skills and behaviors, including persistence, effective communication, following directions, mental agility, metacognition, problem solving and questioning, that are needed to implement a design process successfully; and	6.3(A) resolve challenges in design processes independently using goal setting and personal character traits such as demonstrating courage and confidence;	7.3(A) resolve challenges in design processes independently using goal setting and personal character traits such as demonstrating responsibility and advocating for self appropriately;	8.3(A) demonstrate innovation in a design process using goal setting and personal character traits, including demonstrating calculated risk-taking and tolerance;
K.3(B) use a design process with components such as asking questions, brainstorming, or storyboarding to identify and solve authentic problems with adult assistance.	1.3(B) use a design process with components such as asking questions, brainstorming, or storyboarding to identify and solve authentic problems with adult assistance.	2.3(B) apply a design process with components such as testing and reflecting to create new and useful solutions to identify and solve for authentic problems.	3.3(B) apply an appropriate design process using components such as peer and teacher feedback to create new and useful solutions to authentic problems.	4.3(B) apply an appropriate design process that includes components to improve processes and refine original products for authentic problems.	5.3(B) apply an appropriate design process that includes components to generate multiple solutions for an authentic problem and develop original products.	6.3(B) discuss and implement a design process using digital tools to compare, contrast, and evaluate student-generated outcomes; and	7.3(B) discuss and implement a design process that includes planning and selecting digital tools to develop and refine a prototype or model through trial and error; and	8.3(B) discuss and implement a design process that includes planning, selecting digital tools to develop, test, and evaluate design limitations, and refining a prototype or model; and
						6.3(C) identify how the design process is used in various industries.	7.3(C) identify how the design process is used in various industries.	8.3(C) identify how the design process is used in various industries.

Digital Native
Vs.
Digital Immigrant

Is this still relevant today? If so how?

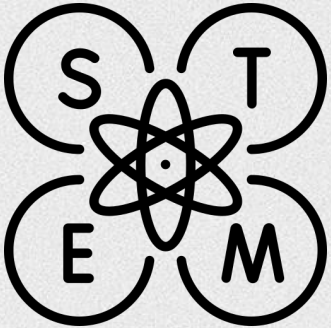

Skills of a
life long learner

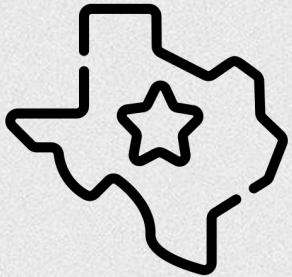
Computational Thinking



Framework

STEM - Design Thinking Process





Challenge Process

STEP 1 - Make a plan - Talk with your group and make a plan.

STEP 2 - Build / Create - Put your plan into action.

STEP 3 - Check your work - evaluate your work is your plan working or do you need to make some adjustments.

STEP 4 - Reflect - Think about your process what worked and what did not. What could you do differently next time.

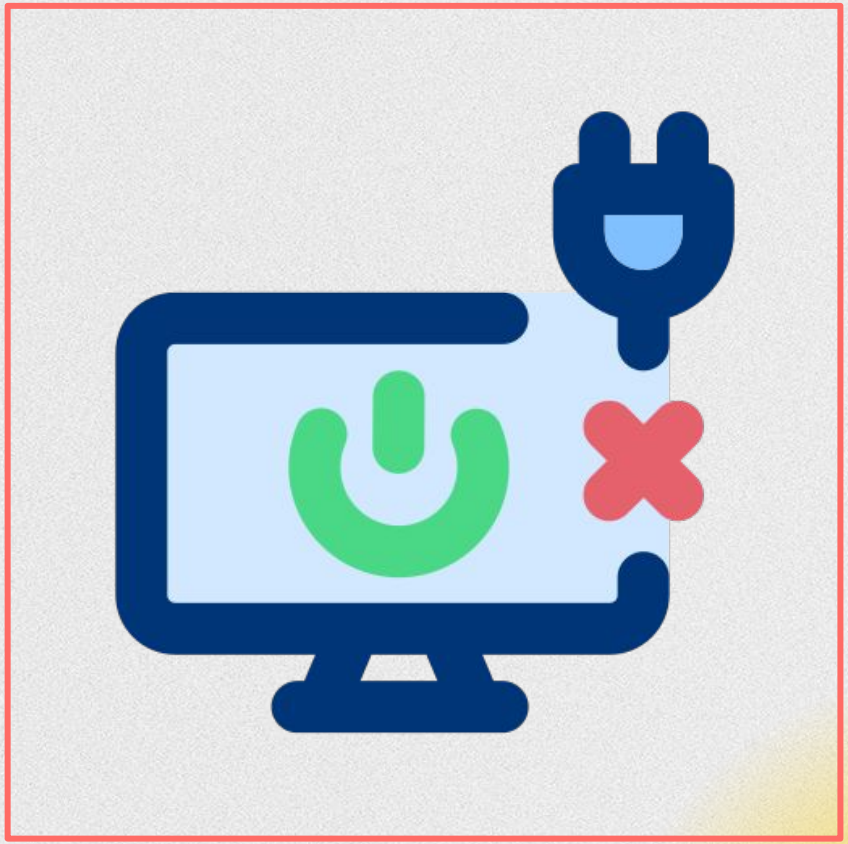
Do you have to always use a device?

No - Unplugged programming is an option

CS UNPLUGGED

C O
D E

kai's education



“STUDENTS WILL EITHER UNDERSTAND THE SYSTEMS SHAPING THEIR WORLD, OR BE SHAPED BY THEM.
DIGITAL FLUENCY IS THE DIFFERENCE."

HADI PARTOVI
Founder and Chairman of the Board, CodeAI

THINK ABOUT YOUR CORE

What TA standards are very similar to other content standards?

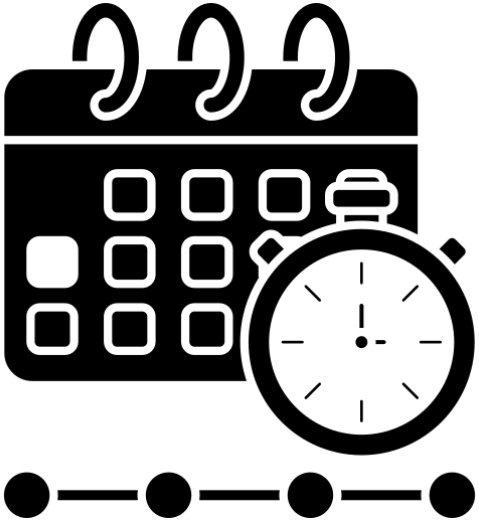
- Does the TA standard require technology?
- Is it a soft skill?
- Could you just add in a few extra vocabulary words?
- What standards require technology?
- Which are technology specific standards?
- Could you reach out to other content areas or teachers to help integrate that standard?

MATH
SCIENCE
ELA
SOC. STU.

Jigsaw

- Break up into 5 groups
- Each group takes a strand
- Look at K-5 in your stand
- Highlight the parts of the document that can be integrated with Math (Green)
- Highlight the parts of the document that can be integrated with ELA/Soc. Stu. (Pink)
- Highlight the parts of the document that can be integrated with Science (Blue)
- What can't be integrated easily? Highlight Orange

Example Lessons

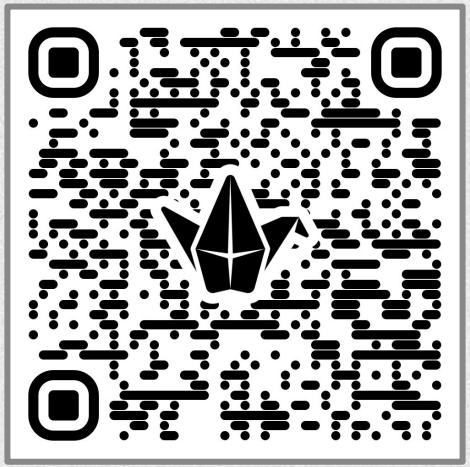


Artificial Intelligence

“Tell me and I forget. Teach me and I remember. Involve me and I learn.”

— commonly attributed to Benjamin Franklin

What do we need to know?



Artificial Intelligence
IN NORTHWEST ISD

How can the Library Help?

Possible Lesson in the Library

KG Kinder

- Chromebook Camp
- Beginning Keyboarding
- Safe places to access information
- Design Process (STEAM Challenges)
- Beginning Coding / robotics

01 First Grade

- Chromebook Camp
- Beginning Keyboarding
- Safe places to access information
- Design Process (STEAM Challenges)
- Beginning Coding / robotics

02 Second Grade

- Online Safety - How to communicate?
- Keyboarding
- Where and how to do online searches
- Design Process (STEAM Challenges)
- Coding / robotics

03 3rd Grade

- Emailing and Posting online
- Keyboarding / Understanding Programs
- Copyright Laws, Evaluate sources for safety and accurate information
- Basic Chromebook Troubleshooting
- Design Process (STEAM Challenges)
- Coding / robotics

04 4th Grade & 05 5th Grade

- Emailing and Posting online
- Keyboarding / Understanding Programs
- Copyright Laws, Evaluate sources for safety and accurate information
- Basic Chromebook Troubleshooting
- Design Process (STEAM Challenges)
- Coding / robotics
- Emerging Technology and Impacts
- Using skills to find information through searches
- Learn how to organize online creations

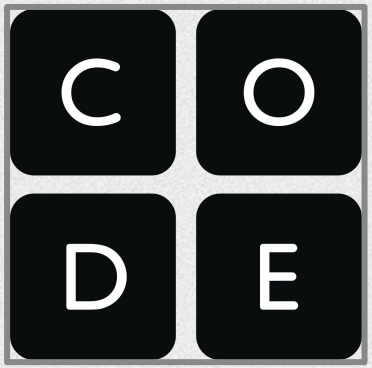
How can the Counselor Help?

RESOURCES

WeTeach_CS through UT Austin

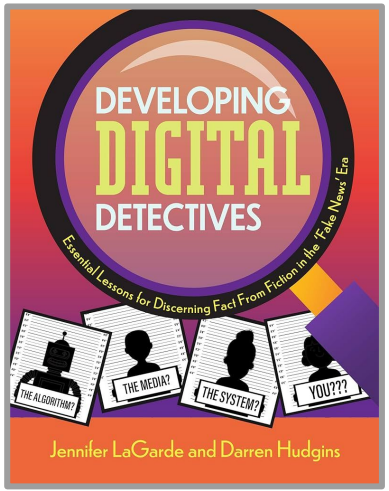
TCEA Aligned Standard Resources

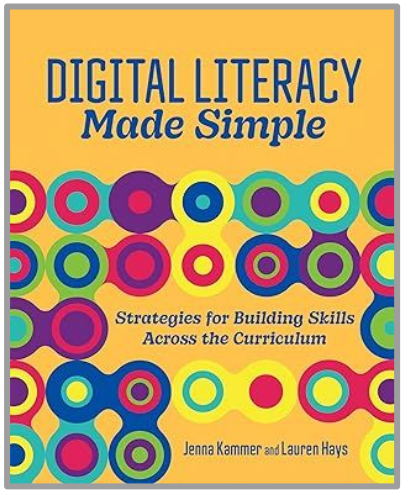
TEA - STEM Education Toolkit

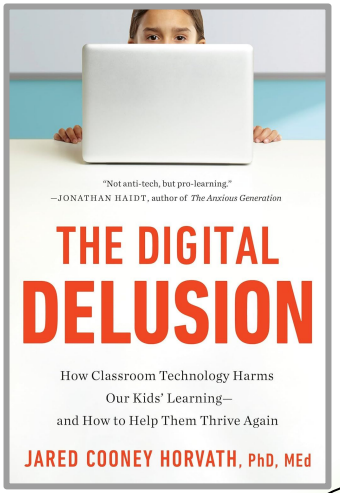


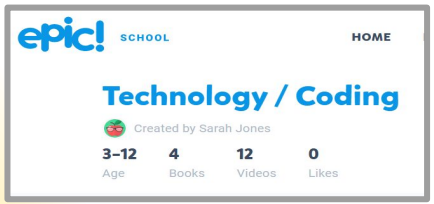
CodeAI
(Known as code.org)

Interesting Reads









ATTENTION!

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THANKS!

Do you have any questions?
sarah.jones@nisdtx.org | 817 215.0807