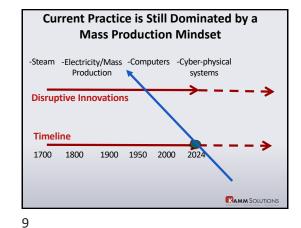


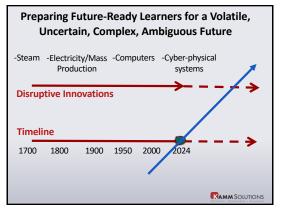


Cyber-Physical Systems: An Integration of computation, networking, and physical systems.













#### **Empowering Learners by** Cultivating Transversal Competencies

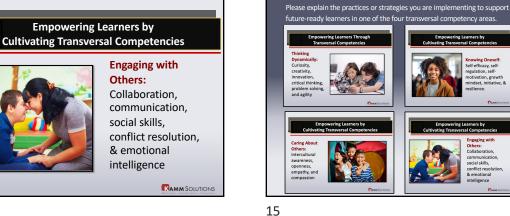
**Caring About** Others:

Intercultural awareness, openness, empathy, and compassion



**RAMM** SOLUTIONS

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### Why is Authentic, Inquiry-Based Learning Effective?

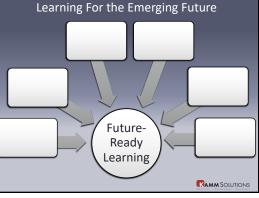
- > It engages the brain to make **connections** between what we know and what we are learning.
- > We learn best when we collaborate with others and look to one another for ideas, resources, and feedback as opposed to one-way communication (creates oxytocin, a hormone the triggers brain architecture to develop)

## Why is Authentic, Inquiry-Based Learning Effective?

**Empowering Learners by** 

Others:

- >It provides an opportunity for students to enter learning from different places and pathways, from their own knowledge and experience. It enables a classroom of variation and takes positive advantage of diversity.
- >It creates real and genuine transferrable knowledge that is used again into adulthood (Ninety per cent of knowledge that is encountered once and spit back disappears; it isn't retrievable).



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# Multi-High School Qualitative Study

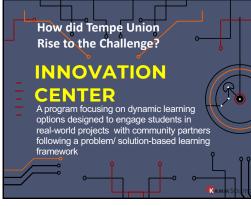
Emerging Themes: Describe Specific Changes/Improvements You Would Like to See

- 1. Know the students build stronger
- student/teacher relationships

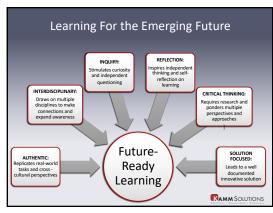
22

- 2. Provide more hands-on learning experiences
- 3. Make classrooms personal (more personalized
- assignments and emphasize the students over the agenda)
- 4. Provide more student agency choice/voice

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Multi-High School Qualitative Study

**Emerging Themes: Describe Specific** 

Changes/Improvements You Would Like to See

5. Plan more interesting, mentally enriching content;

6. Ensure teachers demonstrate passion and interest

8. Provide more variation in lessons and approaches

to learning; present interesting/mentally enriching

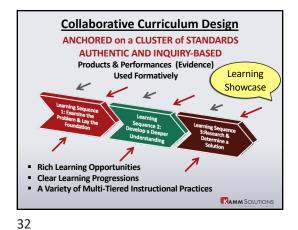
Limit busy work – worksheets

content

23

for the subject they are presenting

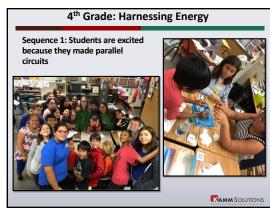
7. Teach real-world skills/competencies

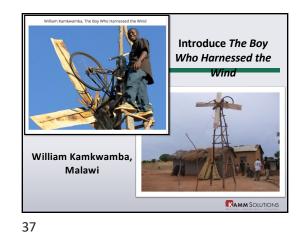










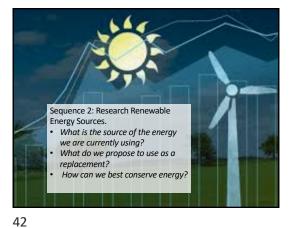


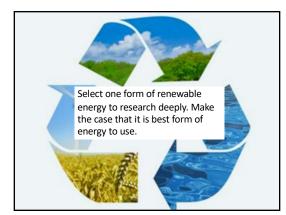


#### Book Projects: Mastering Reading and Writing Standards

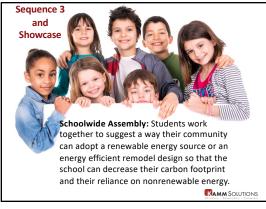


Angela I just watched the Ted talk. Brought tears to my eyes. I'm so glad the kids are learning about this. Amazing man! Just amazing!   Thank you so much for sharing,	you are reading in it everyday. She is	now how much Sophi loves the book class. She tells me every detail about also contemplating some very cool reness issues. I am so happy!!
,	Angela	to my eyes. I'm so glad the kids are learning about this. Amazing man! Just
Cristy Egerton		Thank you so much for sharing, Cristy Egerton





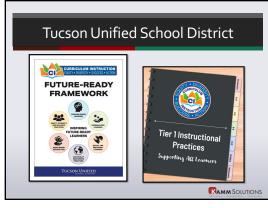


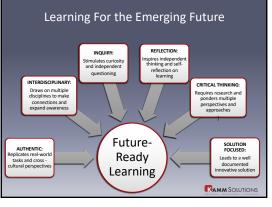


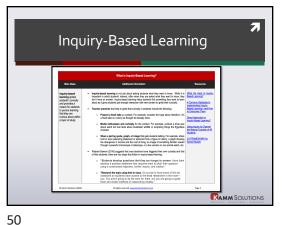
Brilliant Teachers Co-Create Units of Study









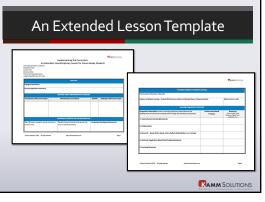




Ralston Elementary School, Golden Colorado



Ralston Elementary School, Golden Colorado



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Learning 5. Showcase

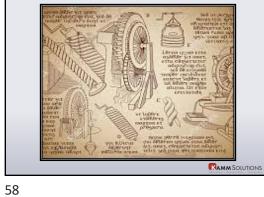
#### **Effective Small Group** Discovering Leonardo Da Vinci Collaboration 1. Inquiry-Based, Discovery ♦ Listen respectfully 2. Peer Collaboration ♦ Communicate clearly 3. Individual Reading, ♦ Participate equally Writing, Computing, Peer Feedback, Reflection ♦ Be aware of the time (Individual) 4. Authentic, Problem/ and group) Solution-Based Connection

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## What do you observe in this picture?

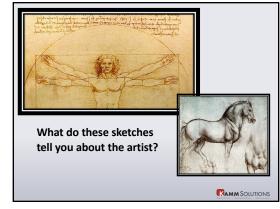


What is your response to this picture? What do you think and/or feel when you look it? Please explain your response.



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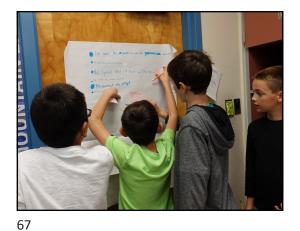


# Discovering Da Vinci

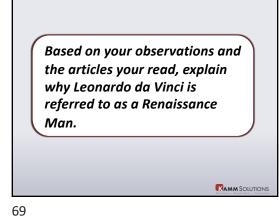
If Leonardo da Vinci were here, what would you want to ask him?



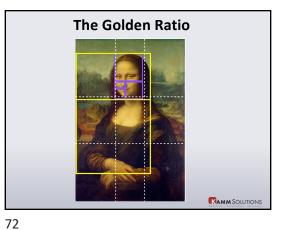
65













# Put Your Genius to Work

The challenge: Determine a problem faced in the world today and design an invention to address that problem. Include detailed notes to support your design. How does your invention work? What challenges could your invention face? What could be a solution?

- ♦ Clean water
- ♦ Air pollution
- ♦ Plastic pollution
- ♦ Climate change
- ♦ Homelessness

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Evidence of Student Learning - Productly/Performances (Allow for Multiple Mean Learning Progression Fram Progression Description Create a learning experience that embraces the	authentie based le	c, inquiry-
Brograntian Description Croute a learning experience that embrance the		rarring:
development of transversal competencies through the following components:	Practices	COS
	Fractices	Materials, Digital Tools, Handouts, etc.)
1. Inquiry-Based Learning (Discovery):		
2. Collaboration:		
3. Research – Read, Write, Speak, Listen, Reflect (Individually or as a Group):		
4. Authentic Application (Real World Problem/Solution):		
5. Learning Showcase:		



