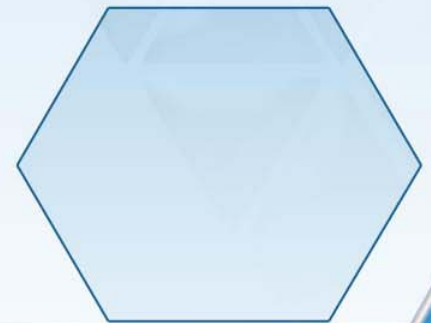# Building Bridges: 21st Century Skills

Walter McKenzie

Building Global Communities

Kamehameha Schools

June 1 – 3, 2005

Wonder Moments

Those moments of clarity wherein understanding is realized and learning takes place; remembered as much for the experience as the understanding itself…..

Wonder Moments

Mrs. Strelich was my 5th grade teacher. During our studies of the California Gold Rush, she would bring equipment that was used to pan for gold. We would go outside in the playground and actually pan for gold (little rocks that she painted gold).

During the week we would earn gold for assignments completed. Everyone worked so hard to earn gold. It was the most fun time I have ever had at school. We wrote reports, colored maps, panned for gold -- the better you did throughout the lessons, the more gold you had to spend on goodies at the end of the unit. It was spectacular!! I will never forget it.

Kristi McCreedy
Bakersfield, California

Wonder Moments

When I was in 11th grade, in World History Class, I had to do a report on Queen Isabella and King Ferdinand. Along with our 10 page report we were required to submit a project. At the time, I thought that this was the hardest assignment I ever had. I had nothing for a while, then just a few days before everything was due, I came up with it. I would make puppets, and then perform for the class.
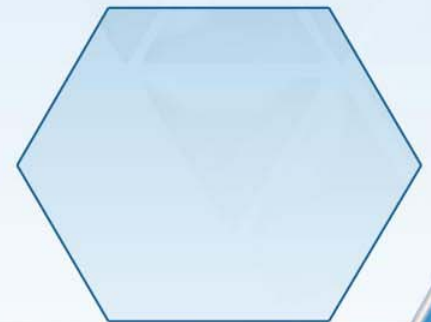
I worked on those puppets for hours after school and weekends. It might not seem too profound to anyone else, but I had to dig deep within and find a part of myself. I found a way I liked to teach.

Danielle Simard
Nashua, New Hampshire

Wonder Moments

What have been your wonder moments?

Wonder Moments

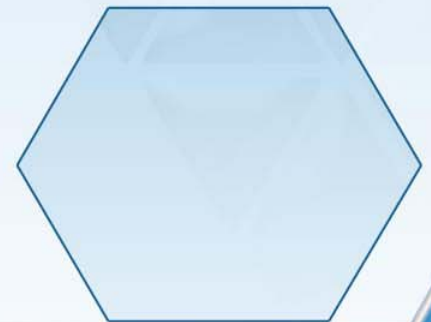How can we design
wonder moments
for our learners?

Levels of Technology Integration

Chris Moersch

Level 0

<u>Non-Use</u> –
the lack of digital technologies

Levels of Technology Integration

Chris Moersch

Level 0

Non-Use –

Traditional technology

Technology is not necessary to successfully implement lessons

Lower levels of Blooms Taxonomy

Verbal and Logical paths to learning emphasized

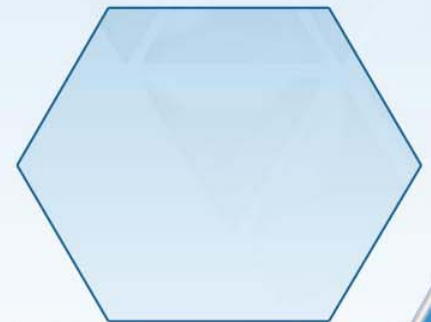Typically one - no more than any two - paths to learning addressed

Levels of Technology Integration

Chris Moersch

Level 1

<u>Awareness</u> –

technology-centered level in which the intended instruction is actually controlled by the technology.

Levels of Technology Integration

Chris Moersch

Level 1

<u>Awareness</u> –

Technology-centered lessons

Focuses on technology skills and literacy

Lower levels of Bloom's Taxonomy

Verbal and Logical paths to learning emphasized

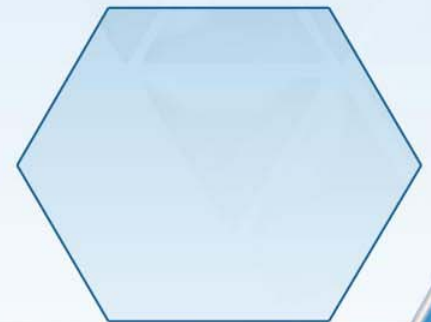Typically one - no more than any two - paths to learning addressed

Levels of Technology Integration

Chris Moersch

Level 2

Exploration –
teacher-centered, teacher-directed level in which technology is used to master content at the lower levels of Bloom's Taxonomy.

Levels of Technology Integration

Chris Moersch

Level 2

Exploration –

Teacher-centered lessons

Technology used to extend or enrich of learning that has taken place

Cookie-cutter approach to technology

Lower levels of Bloom's Taxonomy
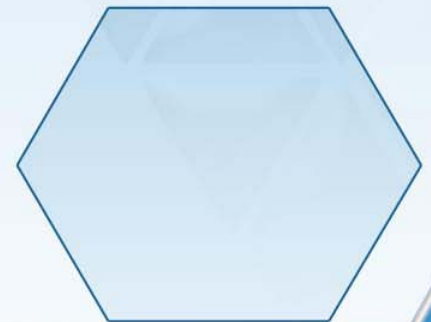
Up to three paths to learning addressed

Levels of Technology Integration

Chris Moersch

Level 3

<u>Infusion</u> –
second teacher-centered level of integration, in which content software and Internet resources are utilized to modify lessons which were taught using traditional media in the past.

Levels of Technology Integration

Chris Moersch

Level 3

<u>Infusion</u> –

Teacher-centered lessons

Makes use of digital productivity tools

Little variation in the ways technology is used for instruction

Mid levels of Bloom's Taxonomy
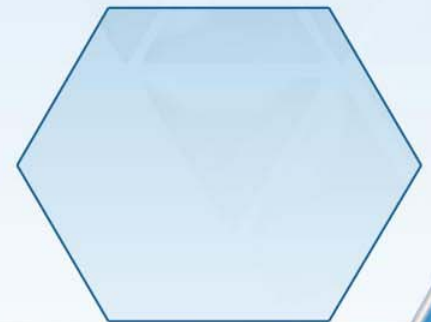
Up to three paths to learning addressed

Levels of Technology Integration

Chris Moersch

Level 4

Integration –
student-centered level in which students engage in higher order thinking activities through inquiry, problem solving and product making in response to a specific task.

Levels of Technology Integration

Chris Moersch

Level 4

<u>Integration</u> –

Student-centered lessons

Sophisticated productivity tools

Inquiry, problem solving and product making in response to a specific task

Higher levels of Bloom's Taxonomy
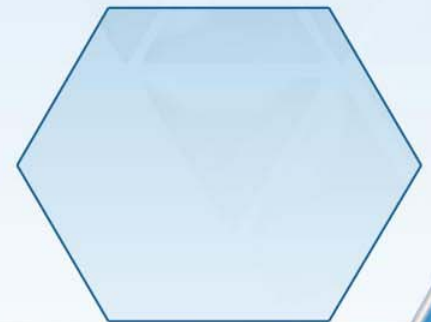
Three to five paths to learning addressed

Levels of Technology Integration

Chris Moersch

Levels 5 & 6

<u>Expansion and Refinement</u> - students select technologies to investigate topics, create original products, communicate knowledge, and demonstrate mastery

Levels of Technology Integration

Chris Moersch

Levels 5 & 6

Expansion and Refinement –

Constructivist methodology

Authentic problem solving tasks based in real world experiences
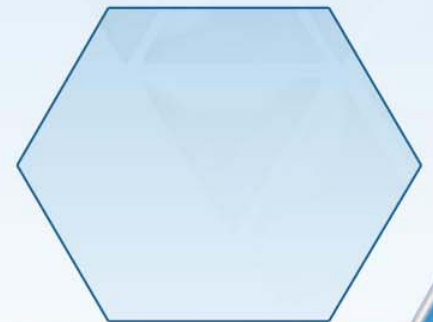
Students have access to all kinds of technology

Higher levels of Bloom's Taxonomy

All nine paths to learning addressed

Building Bridges

- Gardner
- Jacobs
- Wiggins & McTighe
- Taylor

Building Bridges

Standards

Destinations to which your unit will map:

NCTM
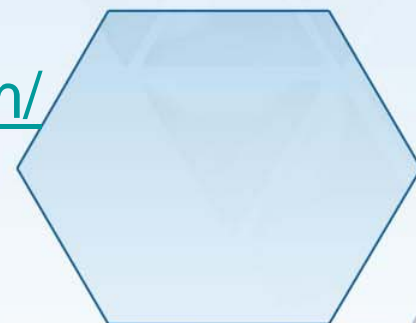http://standards.nctm.org/document/chapter3/index.htm
NCTE
http://www.ncte.org/about/over/standards/110846.htm
NSA
http://www.nap.edu/readingroom/books/nses/html/3.html
NCSS
http://www.socialstudies.org/standards/strands/
By State
http://www.statestandards.com/

Theme

Big picture concept that ties unit together:

- Cycles
- Frontiers
- Networks
- Change
- Decisions
- Goals
- Construction
- Patterns
- Heroes
- Choices

- Solutions
- Standards
- Communities
- Tools
- Boundaries
- Conflict
- Predictions
- Journeys
- Senses
- Communication

Big Idea

Banner-worthy slogan that sets the unit tone:

- Heroes are defined by their circumstances.
- Change is constant.
- Asking the question requires curiosity; answering the question requires courage.
- On a journey, you must know where you've been and where you're going.
- The best solution saves you time and resources.
- One choice is not as good as another; your criteria determine what is best.
- Building understanding is the key to building community.

See http://www.bartleby.com/100/

Need to Know Questions

Questions you will revisit again and again throughout the unit:

- What are the frontiers in our lives?
- Are there frontiers left to explore here on Earth?
- What character traits does it take to explore a frontier?
- Why are we afraid of the unknown?
- What are the rewards of conquering our fears and exploring the unknown?
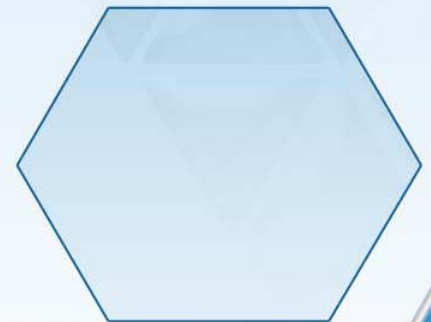
The Mission

The "hook":

- solving a problem
- creating a work product which addresses a specific need
- stimulates the imagination and curiosity
- rich, real world in nature
- open-ended task that students will not be able to easily address in a short span of time
- a purpose for learning
- a climate for learning
- a context for learning
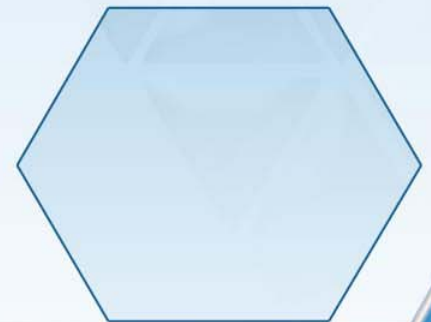
Mapping to the Mind

Mapping to Intelligences should be:

- Task-oriented
- Process-based
- Natural (not forced)
- Promoting higher levels of Bloom's Taxonomy
- Adding to the big idea
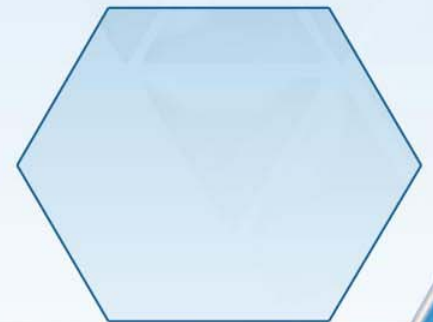
Mapping to the Mind

Learning through:

- Language – Verbal
- Problem Solving – Logical
- Seeing and Imagining – Visual
- Patterns – Musical
- Interaction with the Environment – Kinesthetic
- Interaction with Others – Interpersonal
- Feelings, Values and Attitudes – Intrapersonal
- Categories and Hierarchies – Naturalist
- Larger Understandings – Existential
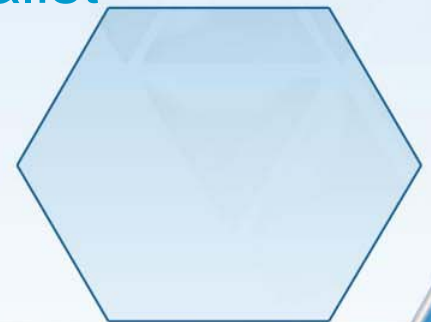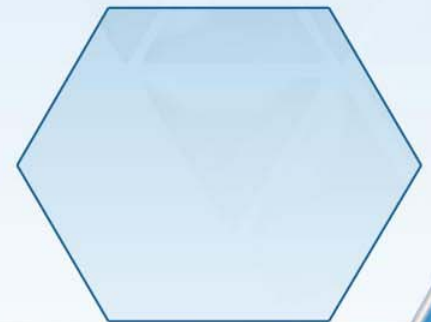
Culminating Event

A logical extension of the mission:

- allows learners to share responses to mission
- a celebration of learning
- showcase student understanding
- an interactive social event
- transform your classroom into another world as it takes on the characteristics of your unit of study
- optimal opportunity for authentic assessment
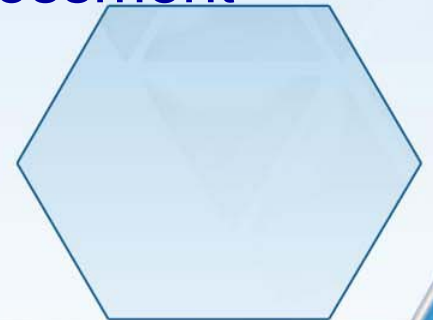
Assessment

Authentic assessment for authentic tasks:

- task-based
- process-oriented
- intelligence-centered
- authentic
- portfolio
- rubric
- checklist

Resources

Books

http://surfaquarium.com/IT/CONTENT/literature.htm

http://www.carolhurst.com/index.html

http://www.acs.ucalgary.ca/~dkbrown/index.html

http://www.scils.rutgers.edu/%7Ekvander/ChildrenLit/

http://www.amazon.com/exec/obidos/tg/browse/-/1000/ref=b_tn_bh_br/102-4063336-2733740

Songs

http://www.rocklibrary.com/Education/

http://www.lyrics.com/

http://lyrics.astraweb.com/

Web Resources

http://surfaquarium.com

http://yahooligans.yahoo.com/

Links
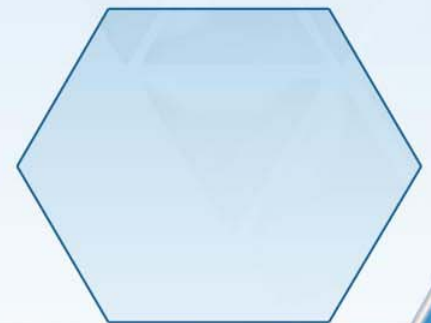
Sample MI Units http://www.surfaquarium.com/MI/units/

Walter's MI Pages http://www.surfaquarium.com/MI/

Standards-based Lessons for Tech-Savvy Students
http://surfaquarium.com/MI/book2.htm

Multiple Intelligences and Instructional Technology
http://surfaquarium.com/MI/book1.htm

Teacher Rubric Makers
http://www.teach-nology.com/web_tools/rubrics/

Rubistar http://rubistar.4teachers.org/index.php

Famous Quotes
http://www.bartleby.com/100/
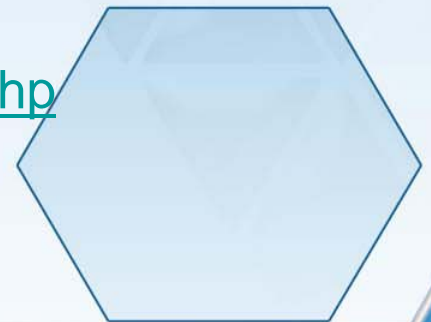
Work with Walter Online!

Join the Building Bridges CoP at the Surfaquarium!

http://surfaquarium.com/CoP/