8th Annual American Indian Alaska Native Education Summit

Transforming for the Future:
Closing the Achievement Gap for American Indian Students
The Stigma of Culture
The Stigma of Culture
Recovering math teacher

“How come we never complicate equations?”
60 Menominee March 155 Miles to Madison
Teachitivity

Updating the 4 C’s

Critical Thinking
Collaboration
Community
Creativity
Closing the gap?

Proficiency

Growth
Curricular Needs – CHECK!

NEVADA ACADEMIC CONTENT STANDARDS

English & Language Arts & Mathematics

With the adoption of the Common Core State Standards in October 2010, they became the Nevada Academic Content Standards for English Language Arts and Mathematics. With this action, the Nevada State Board of Education committed to ensuring that all students are ready for college and careers.

- ELA
- Math
- Transition
- 12-18-14 Webinar
- 12-18-14 Powerpoint
Content Standards vs. Process Standards

What to teach

Number and Operations in Base Ten

3.NBT

Use place value understanding and properties of operations to perform multi-digit arithmetic.

1. Use place value understanding to round whole numbers to the nearest 10 or 100.
2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations.

How to teach

Mathematics / Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council’s report *Adding It Up*: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own efficacy).
Teaching is a challenging profession
Cultural Education
Teacher Training
Facts & Figures

Native Americans in Wisconsin are More Likely to be Unemployed and Live in Poverty

Unemployment and poverty rates in 2012, in Wisconsin.

**UNEMPLOYMENT RATE**
- Native Americans: 11.8%
- Non-Hispanic Whites: 6.2%

**POVERTY RATE**
- Native Americans: 25.3%
- Non-Hispanic Whites: 9.8%

Source: American Community Survey

Do they help?
1st grade classroom

Rote vs. Thinking
Teaching Culture

Teaching Culturally
MEN ARE FROM MARS, WOMEN ARE FROM VENUS

A Practical Guide for Improving Communication and Getting What You Want in Your Relationships

JOHN GRAY, PH.D.
Industrial Pedagogy

One size fits all
Unique Social/Emotional Needs

Assurance
Attention
Love
Respect
Community
Identity
Family’s effect on education
Social/Emotional Needs Research

Maslow’s Heirarchy

Martin Brokenleg “Circle of Courage”

Heather Forbes “Beyond Consequences

Ruby Payne’s “Understanding Poverty”
Women in Teaching - 87%
Let’s play

Kahoot!

Step 1: Get a device
Step 2: Go to kahoot.it
Step 3: Enter game pin
Step 4: Create nickname
Step 5: Have fun!
The inevitable argument

How do you handle?
Can we do that?
Collaboration

Working toward a common goal
Tower-Soudan School

28.8% 2011

91.3% 2012

Reward School 2012

Minneapolis Department of Education
"Many ideas grow better when transplanted into another mind than the one where they sprang up." - Oliver Wendell Holmes
Creativity

What is it?
90 seconds
Divergent Thinking

Fixed Mind-set
Intelligence is static

Growth Mind-set
Intelligence can be developed

Leads to a desire to look smart and therefore a tendency to...

Leads to a desire to learn and therefore a tendency to...
The Divergent Thinking Study

- 98% of participants rated “genius”
- All participants were kindergartners
- At age 10, it dropped to 30%
- At age 15, it dropped to 12%
"OMG MATH IS SOOOO FUN!"
- NOBODY EVER
Redefining mathematics

- Math helps describe our environment
- The foundation of math is problem-solving
- Problem-solving is:

  what you do when you don’t know what to do
What you do...when you don’t know what to do
Creating problem-solvers
“Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world.”

-Albert Einstein
We had a great day fishing!!

The girls caught 138 fish and the boys caught 125 fish. How many fish did our group catch all together?

\[138 + 125 = \square\]
138 + 125 = 263

258
250
230
200
In closing...

Thank you!