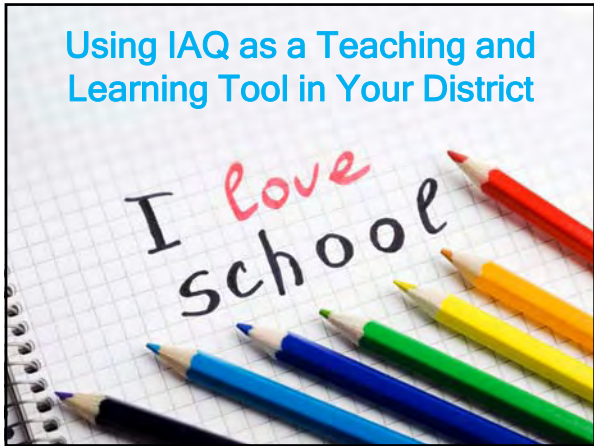
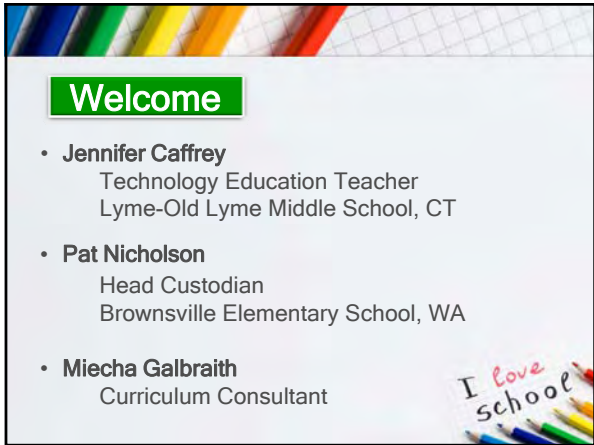


Using IAQ as a Teaching and Learning Tool in Your District



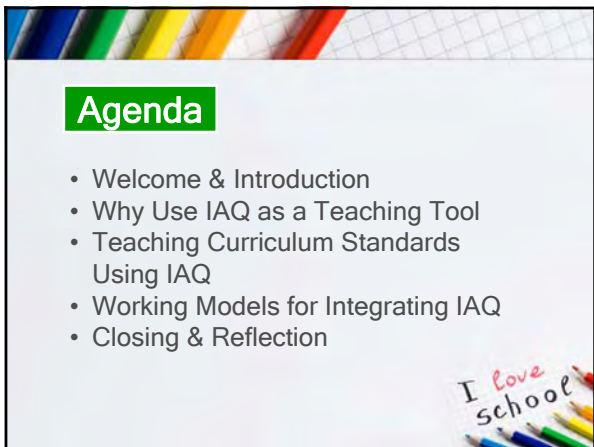
Welcome

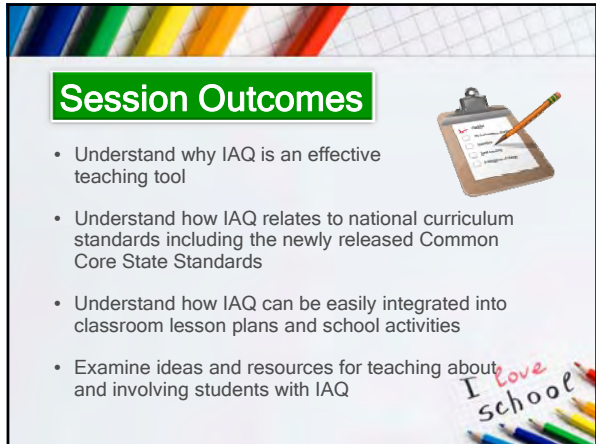
- **Jennifer Caffrey**
Technology Education Teacher
Lyme-Old Lyme Middle School, CT
- **Pat Nicholson**
Head Custodian
Brownsville Elementary School, WA
- **Miecha Galbraith**
Curriculum Consultant



Agenda

- Welcome & Introduction
- Why Use IAQ as a Teaching Tool
- Teaching Curriculum Standards Using IAQ
- Working Models for Integrating IAQ
- Closing & Reflection

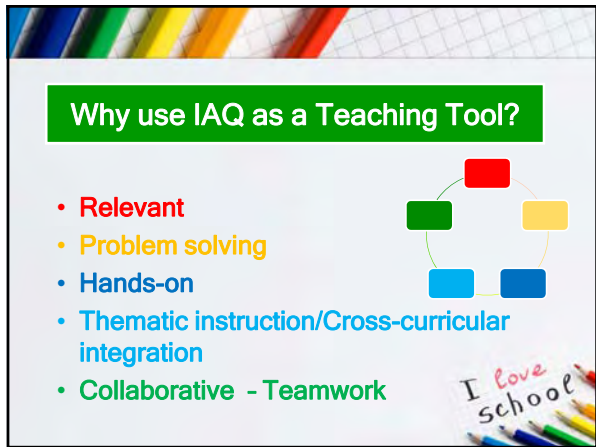




Session Outcomes

- Understand why IAQ is an effective teaching tool
- Understand how IAQ relates to national curriculum standards including the newly released Common Core State Standards
- Understand how IAQ can be easily integrated into classroom lesson plans and school activities
- Examine ideas and resources for teaching about and involving students with IAQ


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Why use IAQ as a Teaching Tool?

- **Relevant**
- **Problem solving**
- **Hands-on**
- **Thematic instruction/Cross-curricular integration**
- **Collaborative - Teamwork**

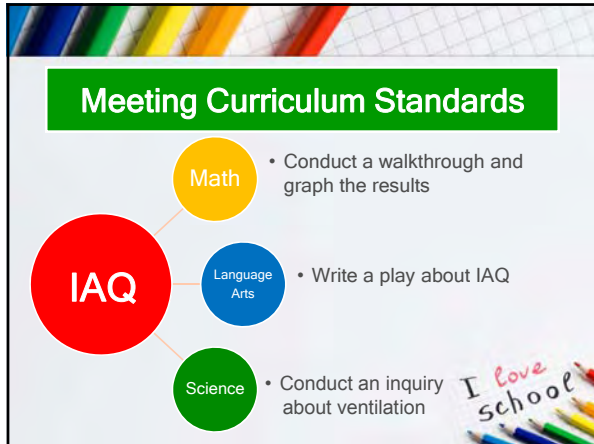
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Meeting Curriculum Standards

- Common Core State Standards for English Language Arts and Mathematics
- Voluntary National Curriculum Standards
- State and District Level Benchmarks

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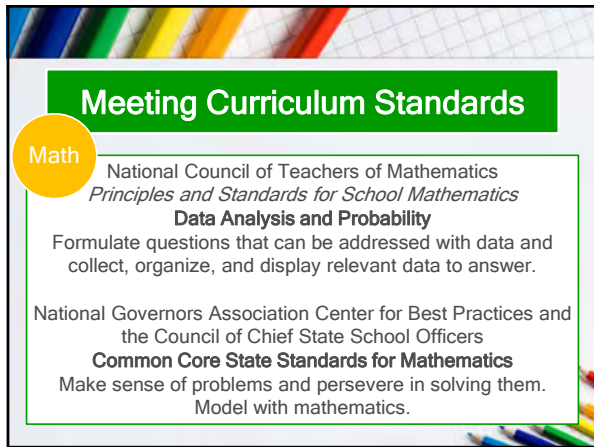


Meeting Curriculum Standards

IAQ

- Math** • Conduct a walkthrough and graph the results
- Language Arts** • Write a play about IAQ
- Science** • Conduct an inquiry about ventilation

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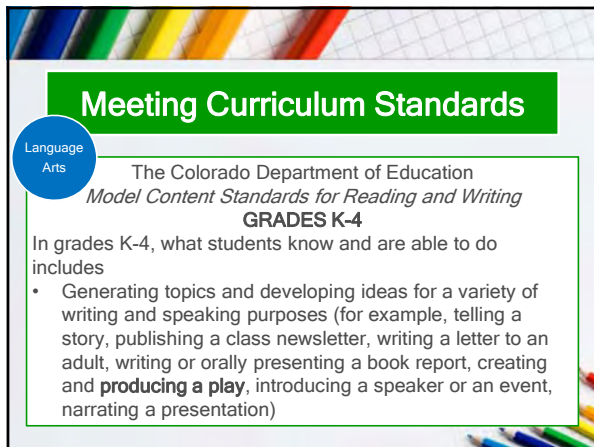


Meeting Curriculum Standards

Math

National Council of Teachers of Mathematics
Principles and Standards for School Mathematics
Data Analysis and Probability
Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer.

National Governors Association Center for Best Practices and the Council of Chief State School Officers
Common Core State Standards for Mathematics
Make sense of problems and persevere in solving them.
Model with mathematics.




Meeting Curriculum Standards

Language Arts

The Colorado Department of Education
Model Content Standards for Reading and Writing
GRADES K-4

In grades K-4, what students know and are able to do includes

- Generating topics and developing ideas for a variety of writing and speaking purposes (for example, telling a story, publishing a class newsletter, writing a letter to an adult, writing or orally presenting a book report, creating and **producing a play**, introducing a speaker or an event, narrating a presentation)



Integrating IAQ

- Classroom Instruction
- School-wide Activities during the school day
- After School Activities




Involving Students with IAQ

School - wide Experiences




Pat Nicholson
Brownsville Elementary School
Head Custodian



Program Goals

- Maintain a clean and healthy school
- Improve school IAQ awareness
- Educate staff and students on IAQ best practices



Interactive: How is Fang involved with student learning?

- Speaks to students about IAQ
- Reinforces IAQ concepts
- Models IAQ best practices
- Promotes hands-on learning

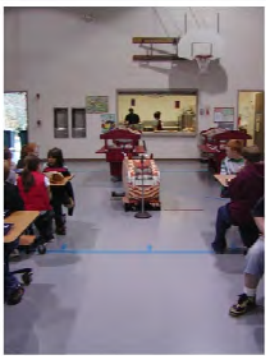


Fang's Message for Students



- "Pick Up Your Stuff" is Fang's motto
- Students can relate to a mascot





- Fang speaking to students in the lunchroom



Reinforcing IAQ Concepts




FANG SAYS

ONLY YOU CAN PREVENT A DIRTY SCHOOL!

PLEASE PICK UP YOUR STUFF!


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Fang says, "Please cover your mouth when you cough, and wash your hands a lot."

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Modeling IAQ Best Practices



- Students are asked to "stomp" from the time they leave the bus or car until they walk through the school doors

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Modeling IAQ Best Practices



- Helps reduce the amount of dust and dirt
- Teaches students something they can use at home

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Hands-on Learning


- Have students help with recycling and other projects that increase environmental awareness
- Have students inspect the school using TfS walkthrough resources
- Train students to be aware of good IAQ practices and to spot bad practices

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- Students involved in an IAQ walkthrough

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- Educating students about asthma

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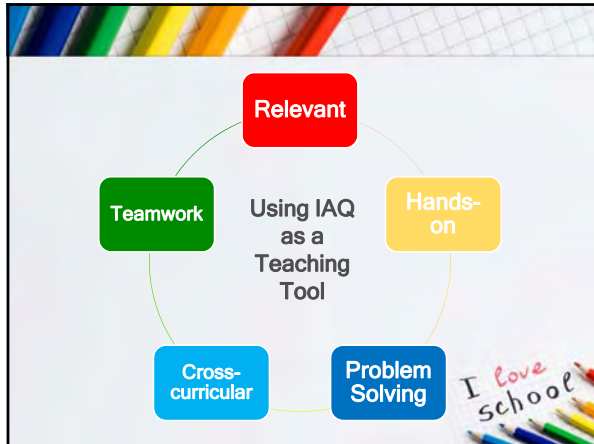
Generating Student Interest

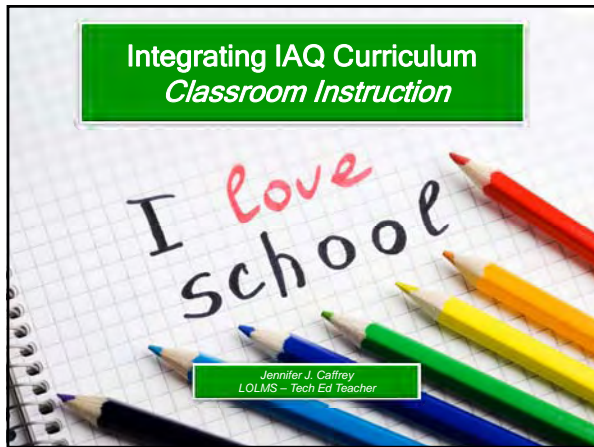




- Make it work for you and your school!
- Impact students for life!

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Technology Education Teacher

Lyme-Old Lyme Middle School
6th - 8th Grade

- 7th Grade Architecture Course
 - Basics of Architecture and Construction
 - Computer Aided Drafting
 - Autodesk Revit Architecture
 - Green Architecture
 - GLAD - Green Literacy and Architectural Design
- Natural Fit


Jennifer J. Caffrey
LOLMS - Tech Ed Teacher







Indoor Air Quality Meeting Educational Standards *Easily*







Getting Started

- Pick strands, standards or skills
- Use the topic of Indoor Air Quality
- Be fun and interactive






Common Core State Standards


- **Reading**
 - Integrate and evaluate content represented in diverse formats and media, including visually and quantitatively, as well as in words.
- **Speaking and Listening**
 - Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
 - Present information, finding, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
- **Language**
 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.

- Skills:
- Public Speaking
- Cooperative learning
- Brainstorming and Discovery





Lesson

- IAQ video
- Discussion and discovery
- Graphic Organizer



Hazard	Source	Health Effects
A. Asbestos	Asbestos old school supplies	Asbestosis, Lung Cancer, Mesothelioma
B. Lead	Lead-based paint, solder	Lead Poisoning, Brain Damage, Learning Disabilities
C. Carbon Monoxide	Gas Stoves, Faulty Gas Furnaces	Headaches, Dizziness, Nausea, Fatigue, Death
D. Radon	Radon Gas from soil, water	Lung Cancer
E. Mold	Water Damage, Damp Areas	Allergies, Asthma, Respiratory Issues



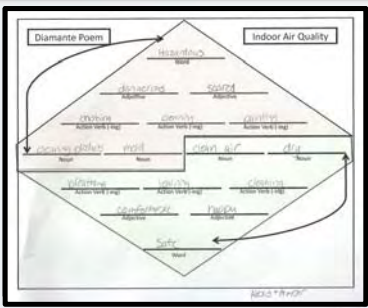


Diamante Poem Activity




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Student Poems



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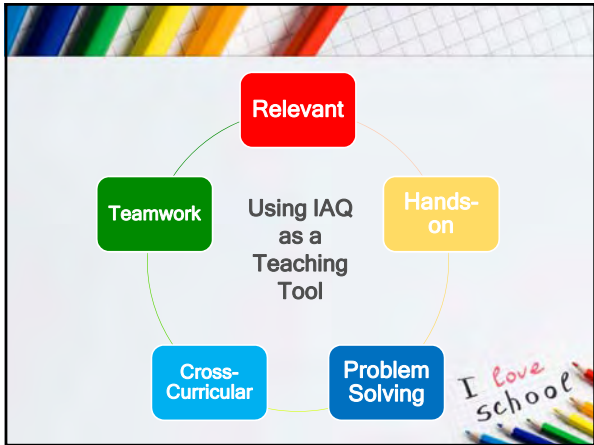
Why is Indoor Air Quality so important in your school?


Alexis:
 "Helps us to understand about a healthy learning environment and if we decide to go into Architecture or Construction in the future we will know how to improve the world for kids."

Bella:
 "It can help us later in life to know what a good environment is that we want to work in."

Matt:
 "It can help you choose a healthy safe house and in a safe area, because we know what to look for."







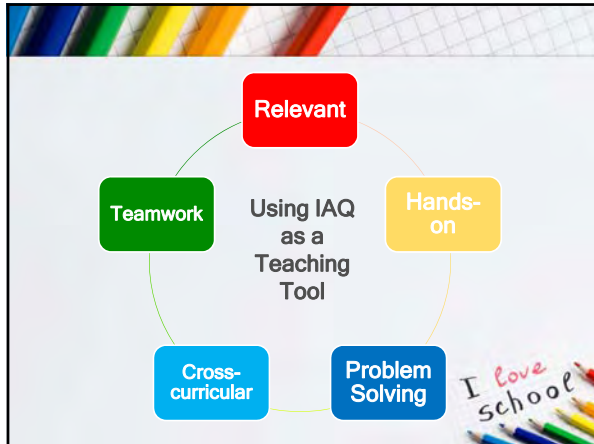
After School Programs

- Curriculum enrichment programs
- Extra - curricular clubs

Architecture Club

- Green Themed - Shipping Container Competition
- Investigate new processes, materials and their affects related to construction
- School of the Future Design Competition
 - Council for Educational Facility Planners International (CEFPi)





Resources

- NEA HIN lesson plans based on *IAQ Tools for Schools* Action Kit

http://neahin.org/Lesson_Plan/iaqlessonplanindex.html

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Resources

- Using your school building as a teaching tool
- Education Professional Practice Standards
- Community partnerships
- You are your own best resource

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Next Steps

How will you use IAQ as a teaching and learning tool?



Thank you for coming!