

Formative Assessment in the Science Classroom:
Adding to our Teacher Tool-Kit
Tuesday, August 4, 2014

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Today's resources available at <http://nwaescscience.pbworks.com/>

Purposes: Participants will . . .

- Develop more of a Formative-Assessment Mindset
- Become better equipped to intentionally integrate formative-assessment strategies into your classroom
- Become more adept at facilitating student talk so that student talk is more productive.

Tentative Agenda:

8:30-9:30	Introductions, Agenda, Goals, Explore First 3 Chapters
9:30-10:15	Engage in various Formative Assessment Strategies
10:20-10:30	Break
10:30-11:30	Engage in various Formative Assessment Strategies
11:30-12:00	Lunch
12:00-1:20	Engage in various Formative Assessment Strategies
1:20-1:30	Break
1:30-2:45	Book Walk and Planning for Implementation
2:45-3:00	Final Reflections

Status of Science Standards and Testing, July 2015:

An Update from your Friendly Northwest Arkansas Science Specialists

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Questions? Just email Lesley and Virginia. We are here to help.

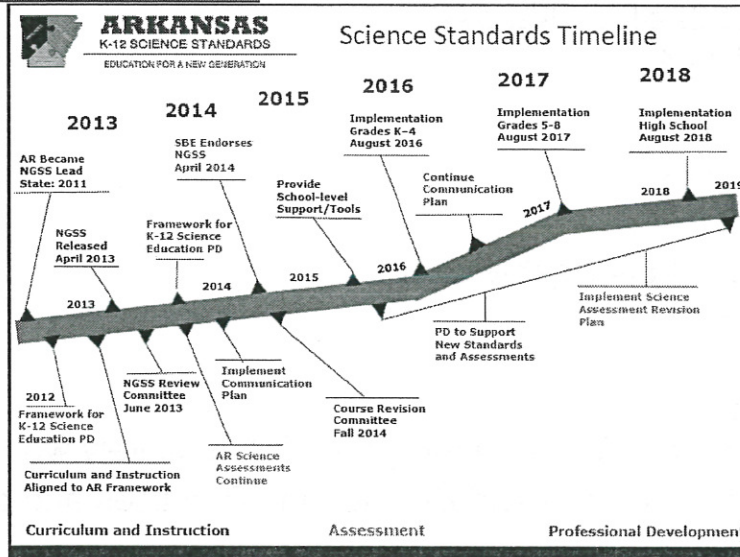
New K-8 Science Standards Have Been Adopted:

On June 11, 2015, the State Board of Education voted unanimously to adopt the new Arkansas K-8 Science Standards. All standards K-8 *have been broken down into grade levels*. (In middle school, they are no longer only chunked together as middle school standards. Now, 6th, 7th and 8th grades have grade-specific standards.) To view your standards go to (new standards are toward the bottom of the page so scroll down):

<http://www.arkansased.gov/divisions/learning-services/curriculum-and-instruction/curriculum-framework-documents/science>

Timeline for Implementation:

Though new standards have been adopted for grades K-8, implementation in those grades is not immediate. See timeline below for when your grade level will implement new science standards. The timeline is available at <http://www.arkansased.gov/divisions/learning-services/curriculum-and-instruction/arkansas-k-12-science-standards>.



Progress of 9th-12th Grade Standards:

A committee of educators from across the state started work this June to determine courses and standards for high school. It is their goal to have standards ready to submit to the State Board of Education for adoption this coming spring.

Testing:

This recent commissioner's memo shares the testing calendar for this upcoming school year:

<http://adesharepoint2.arkansas.gov/memos/Lists/Approved%20Memos/DispForm2.aspx?ID=1597&Source=http%3A%2F%2Fadesharepoint2%2Earkansas%2Egov%2Fmemos%2FLists%2FApproved%2520Memos%2FAAllItems%2Easpx>

What does this mean for science? ACT Aspire will be administered to students in grades 3-10 instead of PARCC and Benchmark/EOC. ACT Aspire has a science section so students at grades 3-10 will take a science test. In eleventh grade, students will have the option of taking the ACT (paid for by the state.) For more information about ACT Aspire, go to <http://www.discoveractaspire.org>.

Predict : what will happen to temp after swipe?

Explain : why do you think that will happen?

Evaporation and Energy
Data and Observation Sheet

Evaporation and Energy Activity:

Observe :

Temperature	
Before swipe	After swipe

THINK - PAIR - SHARE

Based on your observations, did the thermometer take in or give off energy? How do you know? What was the role of evaporation in the changes you observed?

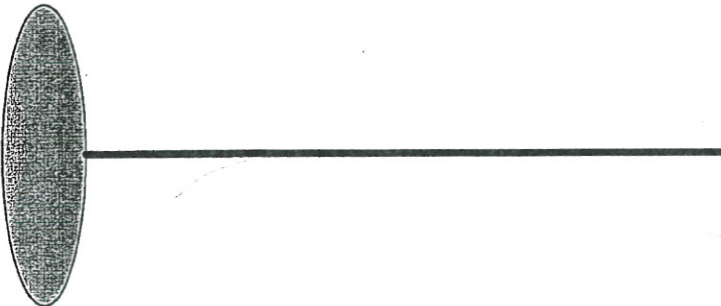
My name: _____ Partner's name: _____

Think - my thoughts or understanding at this time.

Pair - what I understand my partner is telling me.

Share - our common understanding after talking, what we can share with others or what was most important from our dialogue.

(annotated)
Create a labeled drawing that represents what the alcohol molecules would do on the rod of the thermometer (this would be a highly magnified view).

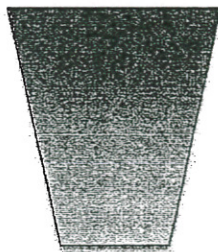


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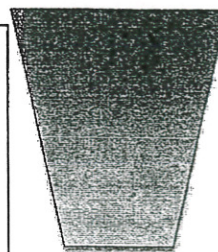
Condensation and Energy

Data and Observation Sheet

Room temperature water



Cold ice water



What happened on the outside of each cup?

THINK - PAIR - SHARE

Based on your observations and thinking about water molecules and energy – explain your thoughts about what was happening with energy (and energy transfer) in both situations.

My name: _____ Partner's name: _____

<p>Think – my thoughts or understanding at this time.</p>	<p>Pair – what I understand my partner is telling me.</p>
<p>Share – our common understanding after talking, what we can share with others or what was most important from our dialogue.</p>	

How would you complete the following statements?

During evaporation energy leaves from _____

During evaporation energy goes to (or into) _____

During condensation energy leaves from _____