

**Magnifying Possibilities: Zoom in on the**

**VISION**




NORTH CAROLINA ASSOCIATION FOR THE

**GIFTED &  
TALENTED**

**43rd Annual NCA GT Conference**

Winston-Salem Marriott and Embassy Suites

**March 2-3, 2017**



# Using Dynamic Word Walls for K-2 Science and Literacy

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# Introductions



- Please complete the sign in sheet that is circulating with your name, school, LEA, and email address.

# NCDPI Science Resources



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**Announcements:**

[Summer Institute 2016](#)

**July 18, 2016:**  
Updated Formative Assessment Probe Alignment Guides to include *Uncovering Student Ideas in Earth and Environmental Science-22 New Formative Assessment Probes* (Keelley, R. & Tucker, L., 2016) "Added July 2016" are now posted on the [K-12 Formative Assessment Probe Alignment](#) wiki page. These new probes are aligned to Essential Standards in Grades 4-8 and high school Earth and Environmental Science.

**Join our Science Listserv!**  
Email: [Marilyn.Johns@dpi.nc.gov](mailto:Marilyn.Johns@dpi.nc.gov) and request to join one or more:  
• Elementary  
• Middle or  
• Science Supervisors/High School

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K-5 Resources  
6-8 Resources  
9-12 Resources  
K-12 Resources  
Safety Resources

**PROFESSIONAL DEVELOPMENT**

**TESTING AND ACCOUNTABILITY**

**OTHER INFORMATION**  
Math & Science Partnerships  
Presidential Awards  
NC Public Schools Science Website

The cover image for the Science North Carolina Common Core and Essential Standards. It features a photograph of a female student in a white lab coat, holding a test tube and looking at it. The background shows a laboratory setting with other students and equipment. The title "Science" is prominently displayed at the top in white on a blue background. Below the title, it says "North Carolina Common Core and Essential Standards". At the bottom, there is a small logo for the Public Schools of North Carolina and the Department of Public Instruction.


What is wrong with this picture? If you said, "she needs some chemical splash goggles" you are a super safety teacher!!

<http://scnces.ncdpi.wikispaces.net/home>

# NCDPI Science Resources



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## K-5 Science Resources

K	1	2
3	4	5

**Welcome!**  
This is where you will find grade level support packs and resources to help plan for classroom implementation of North Carolina's Essential Standards for Science.

**Wonders of Weather Resource WIKI**  
...a K-6 resource site for teaching and learning about weather.  
<http://wondersofweatherwiki.ncdpi.wikispaces.net/>

We welcome your feedback!  
[donna\\_kenestrick@dpi.nc.gov](mailto:donna_kenestrick@dpi.nc.gov)  
[debra\\_hall@dpi.nc.gov](mailto:debra_hall@dpi.nc.gov)

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# Why should Science be well-taught?



- *Science is an enterprise that can be harnessed to improve the quality of life on a global scale.*
- *Science may provide a foundation for the development of language, logic and problem-solving skills in the classroom.*
- *A democracy demands that its citizens make personal, community-based, and national decisions that involve scientific information.*
- *For some students, Science will become a life-long vocation or avocation.*

# Teaching and Learning Science



- ***Children learn about the world by observing, thinking, and talking.***
- Children have sophisticated ways of thinking about the natural world based on their direct experiences.
- ***Children talk about their experiences.***
- Children can engage in reasoning processes and these can form the underpinnings of scientific thinking.
- ***Children talk about their ideas.***
- Instructional practice is built on teacher's knowledge of the subject, their understanding of skills and knowledge their students have, and their ability to orchestrate complex, unscripted classroom discussions.
- ***Teachers use unscripted talk to move student learning forward.***



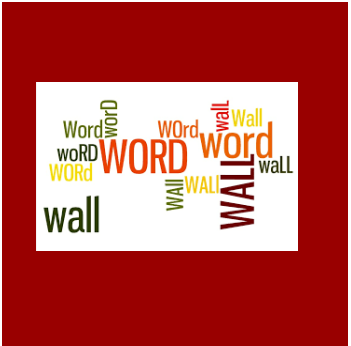
# Using Words – Teaching Words



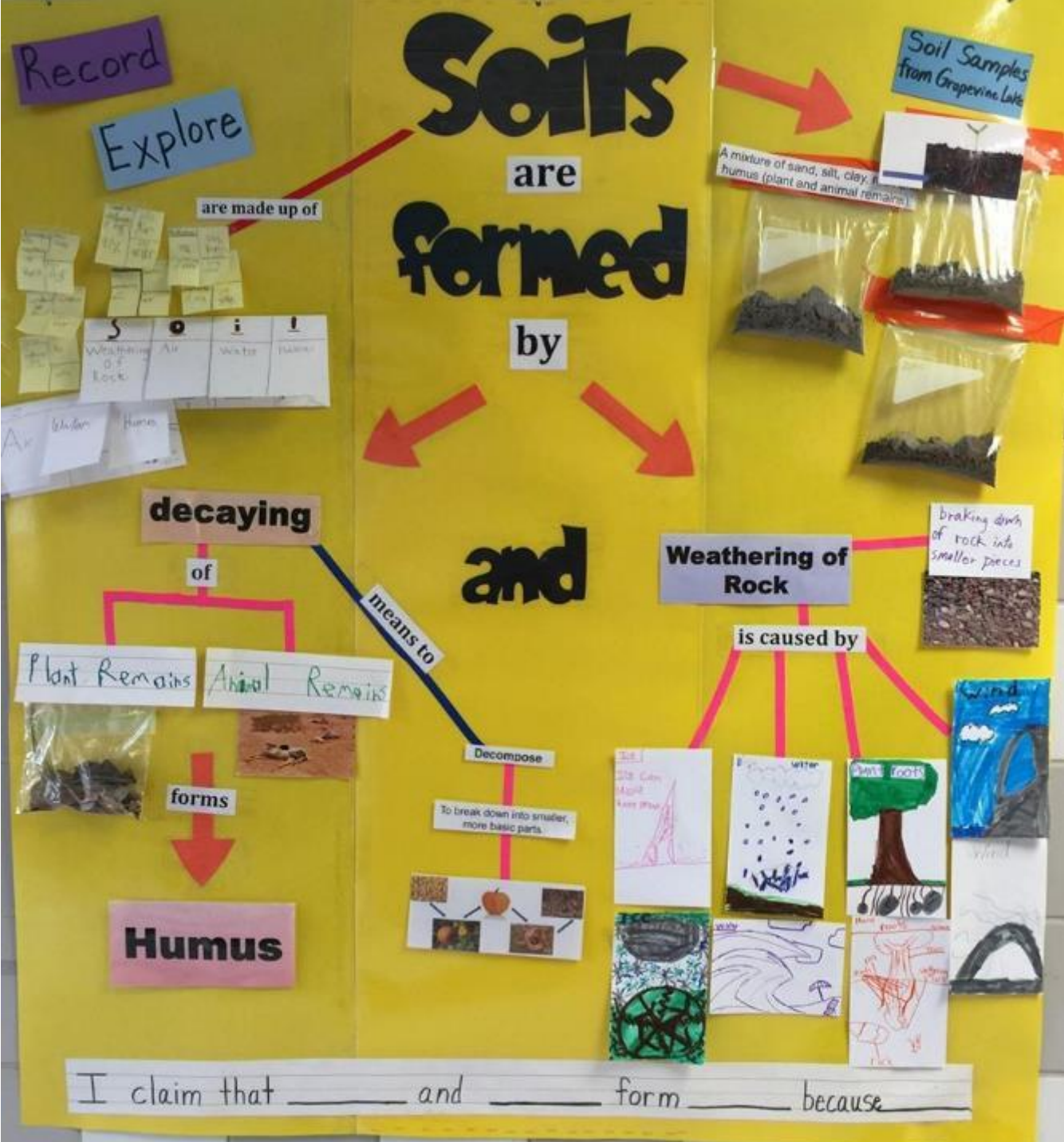
- When children talk they use **words**.
- Learning new **words** helps students to build and expand their knowledge.
- **Word walls** can be used to introduce new words and concepts, and to develop conceptual knowledge.



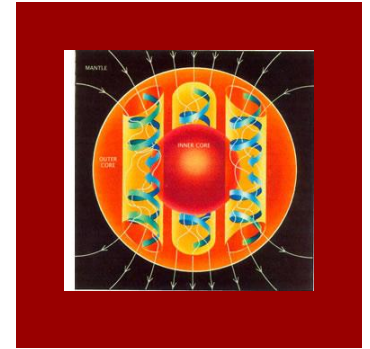




Tiered  
Vocabulary  
Relationships  
Realia  
Student  
generated  
work



# What are Dynamic Word Walls?



- Are grounded in **science standards**.
- Visual representation of organized knowledge.
- Build and **change over time**.
- Help students to see the **connections, relationships, causal patterns**.
- Helps build **academic content vocabulary** and supports **fluency**.
- Opportunities to use **student-generated artifacts** to demonstrate understanding.

# Dynamic Word Walls: Group Work

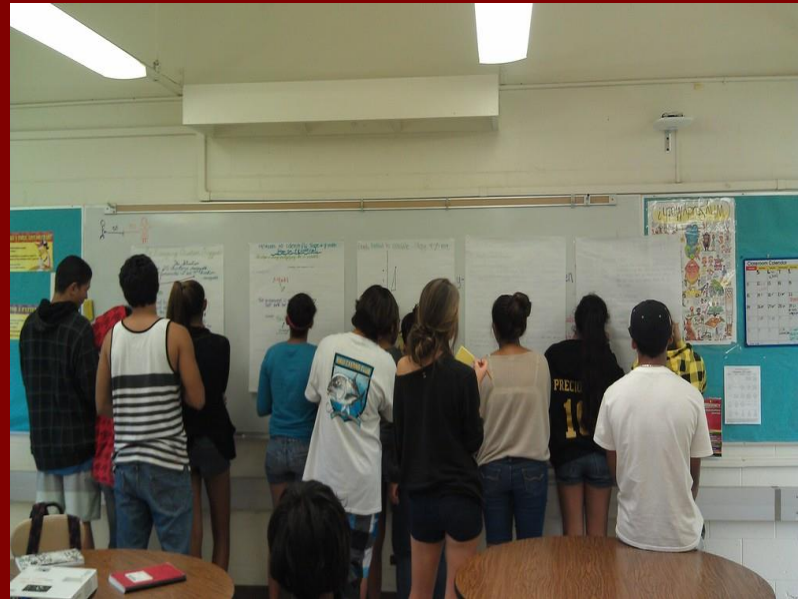


- Examine the North Carolina Science Essential Standards and Unpacking.
- Determine the vocabulary for the unit.
- Sketch a concept map of the vocabulary.
- Think about the connections, as this determines the type of word wall.
- Brainstorm realia, student work, tiered vocabulary, relationships.

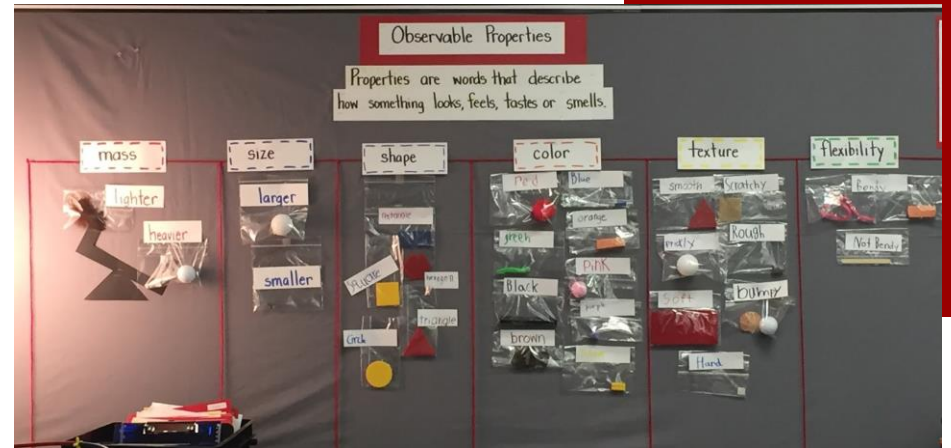
# Gallery Walk



- Circulate and study the different word wall sketches.
- Leave Post-it® note feedback as you circulate.



# Using Dynamic Word Walls



- Builds academic vocabulary.
- Builds conceptual knowledge.
- Show connections between ideas.
- Provide opportunities for assessment.
- Will support the development of scientific thinking.



# Using Dynamic Word Walls

- Aurasma
- <https://www.aurasma.com/>



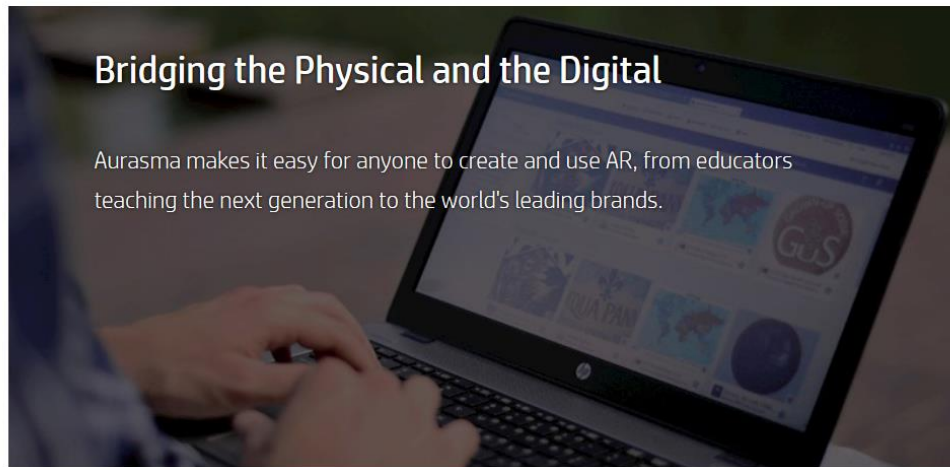
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## Bridging the Physical and the Digital

Aurasma makes it easy for anyone to create and use AR, from educators teaching the next generation to the world's leading brands.



# Evaluations

- **Front:**
  - **Plus**-on the left describe the things you most liked about the presentation today, especially things that you believe you might be able to do in your own classroom.
  - **Delta**-on the right describe the things you think could be improved and how.
- **Back:** Rank order 3 topics that were touched on in today's presentation that you would like to hear more about in the future.





Thank  
You!

THANK YOU