

# Sense Making through Science Talk

NWA K-4 Science Cadre Session 2

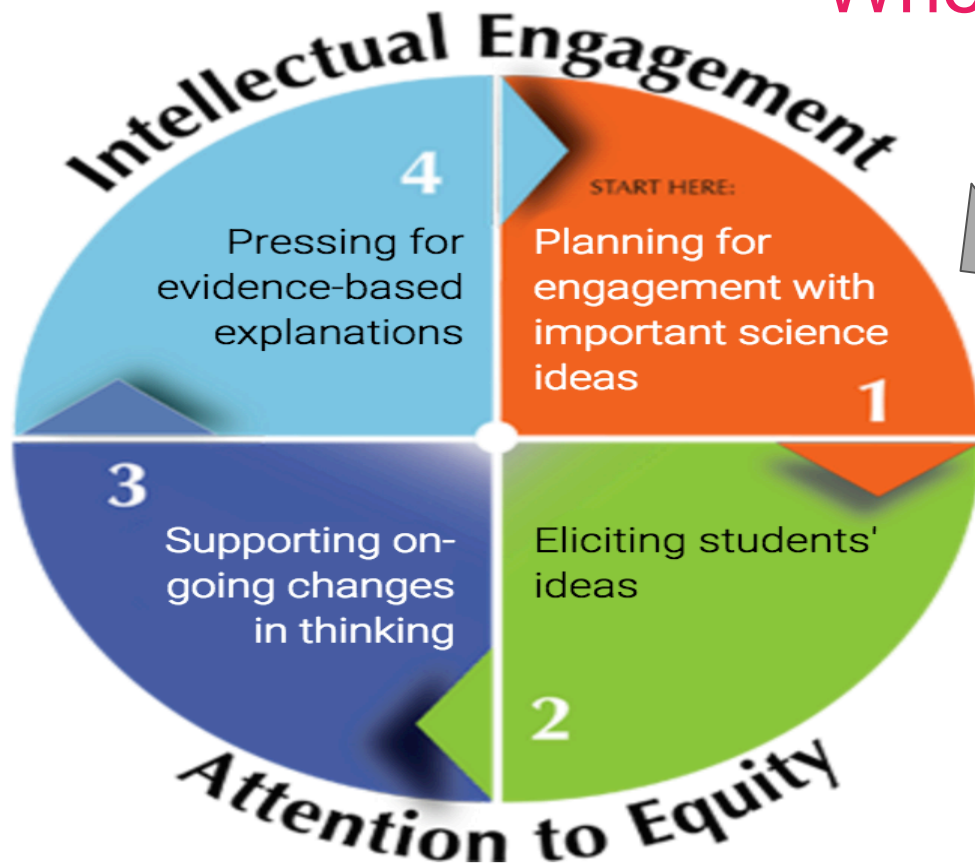
11.17.15

## Where We've Been...

### Last Year

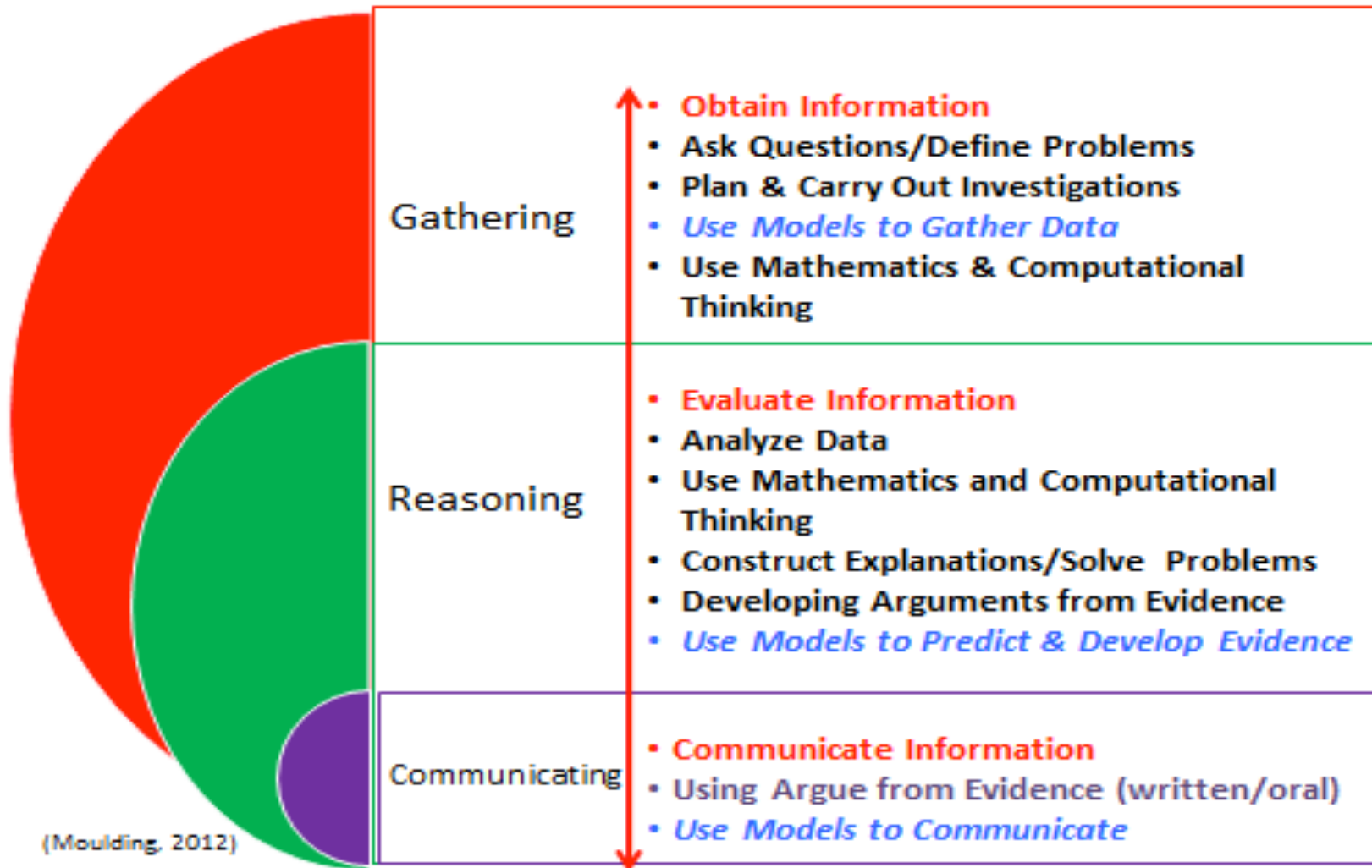
- Introduction to NGSS
- Modeling
- Essences of Student Thinking (Prior Knowledge, Gathering Information, Making Sense of Data, Megacognition)
- Claims, Evidence and Reasoning

## Where We're Going...



Engage and  
Explore before  
Explain

Productive Science  
Talk-- Where does  
tonight go?



(Moulding, 2012)

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# TEACH YOUR NEIGHBOR A SCIENCE CONCEPT

Without Using Your  
Vocal Cord

Chose who will go first

You may sign, act, or draw  
anything you need for your  
partner to guess the  
concept

Once finished, trade turns  
with partner

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# How do we engage in talk in the Science Classroom?

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Let's Chat.



# *Performance: Smelly Balloons!*

## **Group Performance**

### **Investigate**

1. Explore – Using the materials provided investigate the nature of balloons as a solid.
2. **Formulate questions to design an investigation to gather evidence to support an explanation for the causes of the smell being detectable outside the balloon.**
3. Develop **evidence to support your explanation for how (causes) the smell moves through the balloon**



# Create an Explanation of Smelly Ballo



## *Individual Performance*

### 4. Sustained Silent Writing

Write in your journal or on note paper (in complete sentences) your **explanation** for how this phenomenon occurs. Include **evidence** to support your **explanation** for the **causes** of the water moving from one cup to the other. (SSW)

## **Group Discussion**

## *Science Reflection*

5. Write in your journal the any revisions/additions you have on your explanation of the concept.



# How did we engage in talk during the Smelly Balloon Investigation?

Let's Chat. . .



# Making Thinking Visible: Talk & Argument Article

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Read and annotate the article.

Please refrain from discussion until time is up to allow everyone to focus on reading.



## **Table Discussion:**

What did you find interesting?

How can you incorporate these ideas into your classroom?

# Productive Talk Video

<http://tinyurl.com/pbstbrm>



# Smelly Balloons Original Lesson

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Look at the Smelly Balloon Lesson

How did we tweak this lesson to incorporate Science Talk?

How does this help us meet the demands of the Science & Engineering Practices?



# Implementing Science Talk in Your Classroom



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Think of an upcoming science lesson in your classroom in which you could incorporate Science Talk.

Use the *Making Thinking Visible* article and *Goals for Productive Discussion Checklist* to facilitate classroom discussion.

Purposefully plan questions which will stimulate students to ask more questions and clarify their reasoning.