

Vicki Bechard
*Teaching and Learning
Consulting Network, LLC*

**Learning
Forward Kansas
2014 Spring
Conference**

Getting to the Heart of Understanding

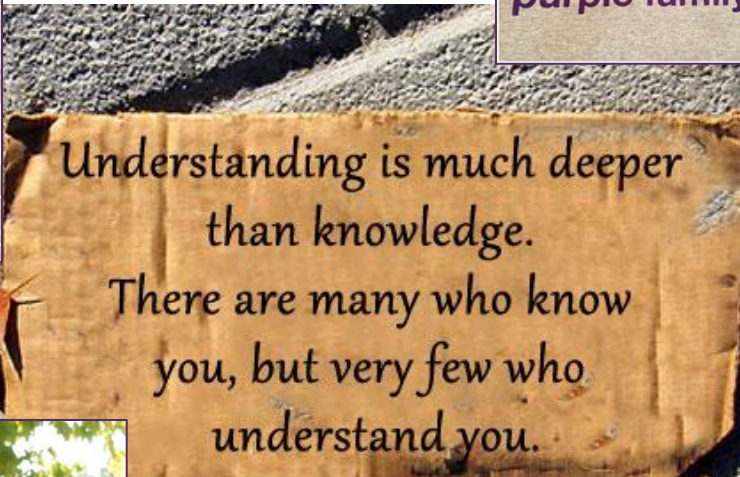
Uncovering the complexity
and layers of understanding



Who Am I?



One big, happy,
purple family.



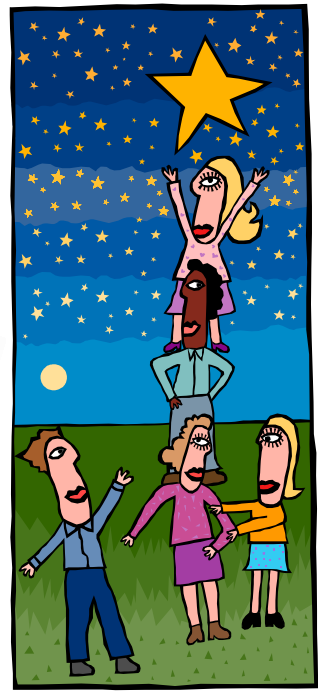
Understanding is much deeper
than knowledge.
There are many who know
you, but very few who
understand you.





Understanding Expectations

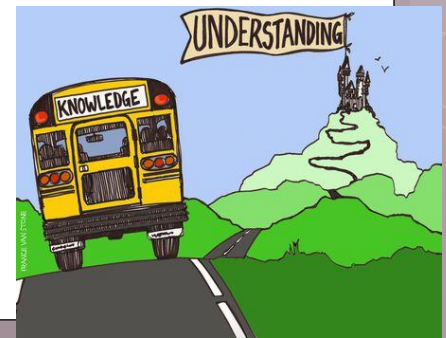
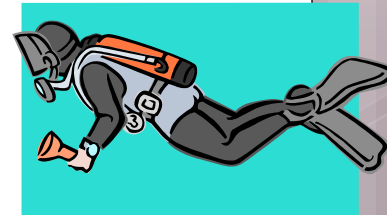
- Housekeeping
- Learner Expectations
- Clock Buddies





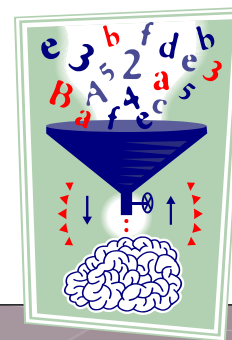
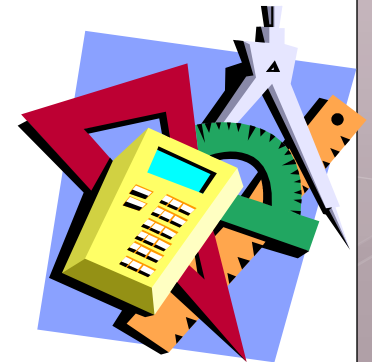
Big Ideas about Understanding

1. Knowledge and understanding are not equivalent.
2. Understanding is complex and has many layers.
3. Deeper understanding requires deeper thinking.
4. Understanding requires that one demonstrate what they know and can do with the learning.

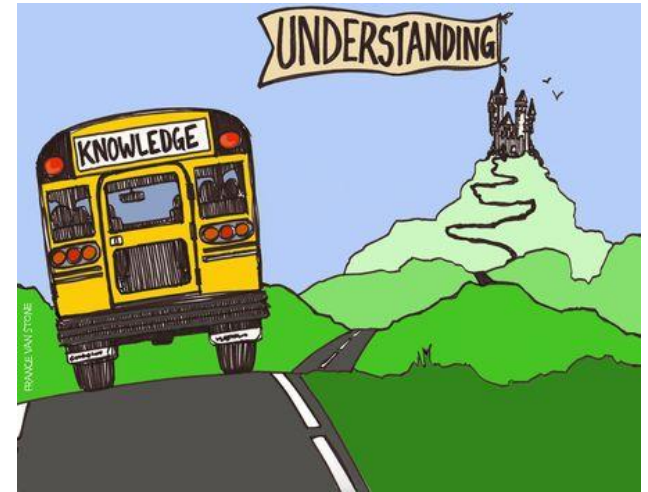
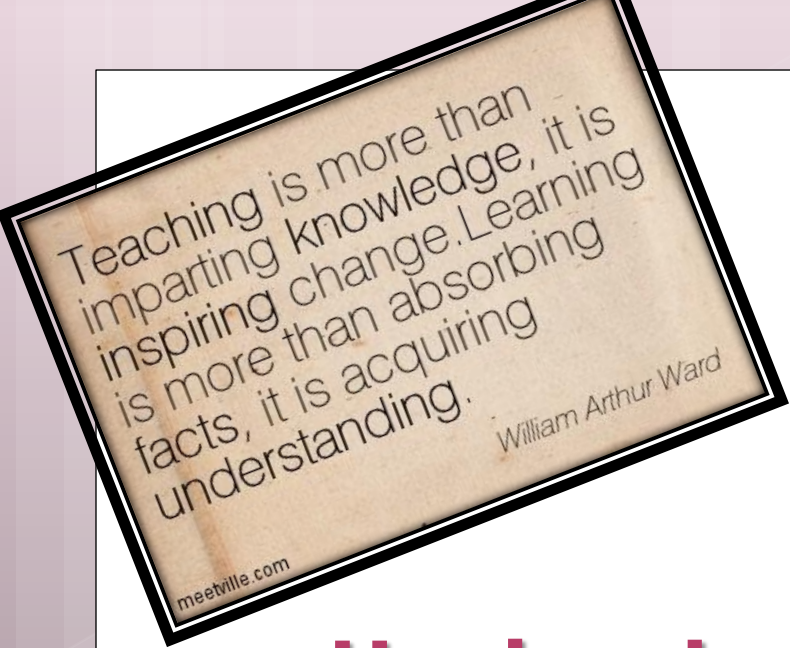


Essential Questions about Understanding

1. When does knowledge translate to understanding?
2. How can one demonstrate understanding of desired learning?
3. How does focusing on the 6 Facets of Understanding increase cross disciplinary awareness?
4. What assessments are most effective in measuring understanding?



Understanding

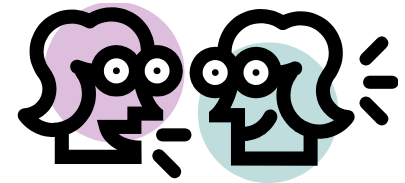


Understanding Understanding

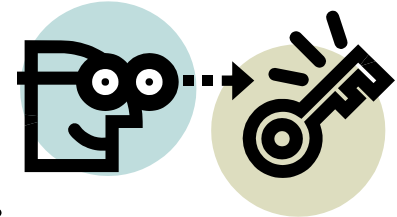
- ❖ What does it mean to understand?
- ❖ How is that different from knowledge or comprehension?
- ❖ What do I need to understand?
- ❖ How do you know I understand?

What is Understanding?

1. Think, Write, Pair, Share – your definition of Understanding



2. Can you teach someone to understand?



3. How do we understand?

4. 4 Column KWL of Understanding Terminology

3:00



Quotes on Understanding

- Only a person who has questions can have real understanding.

Hans-Georg Gadamer

“The fact that you are willing to say, “I do not understand, and it is fine,” is the greatest understanding you could exhibit.”

– Wayne Dyer

understanding

www.BackintheMind.com

“THE WORLD IS FILLED WITH KNOWLEDGE BUT VERY LITTLE UNDERSTANDING”.

– MR. POSITIVELY INCLINED, ERVIN WELSH

If you can't explain it **simply**, you don't understand it well enough.

– Albert Einstein

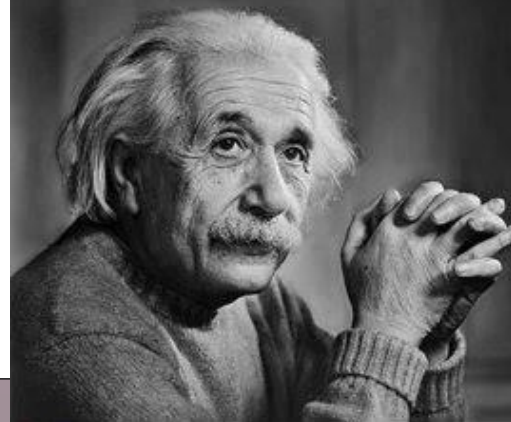
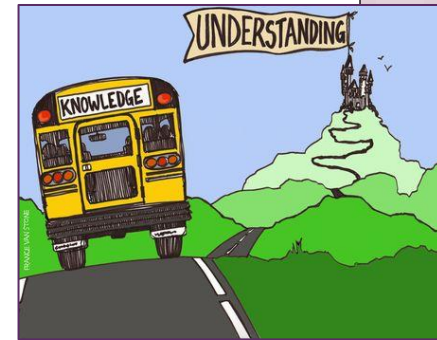


Table Talk: *Typical Instructional Strategies & Assessments*

- Brainstorm how we typically instruct and or assess desired content
- Analyze what is being asked
- What are we teaching/assessing, knowledge or understanding?



What is the difference?



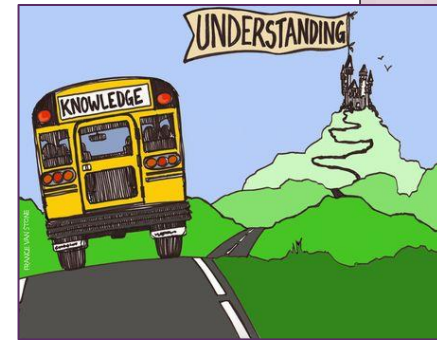
Knowing

- Facts.....
- Facts in relation to other facts.....
- Verifiable claims....
- Right or wrong.....
- Truth (or not).....
- Respond to cues...

Understanding

- Meaning of facts
- Theory behind the facts
- Fallible, in-process theories
- Degree or sophistication
- Why it is the way it is
- Judge when to use and not to use knowledge

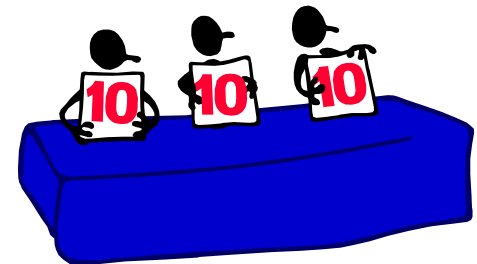
Another Look at the Differences



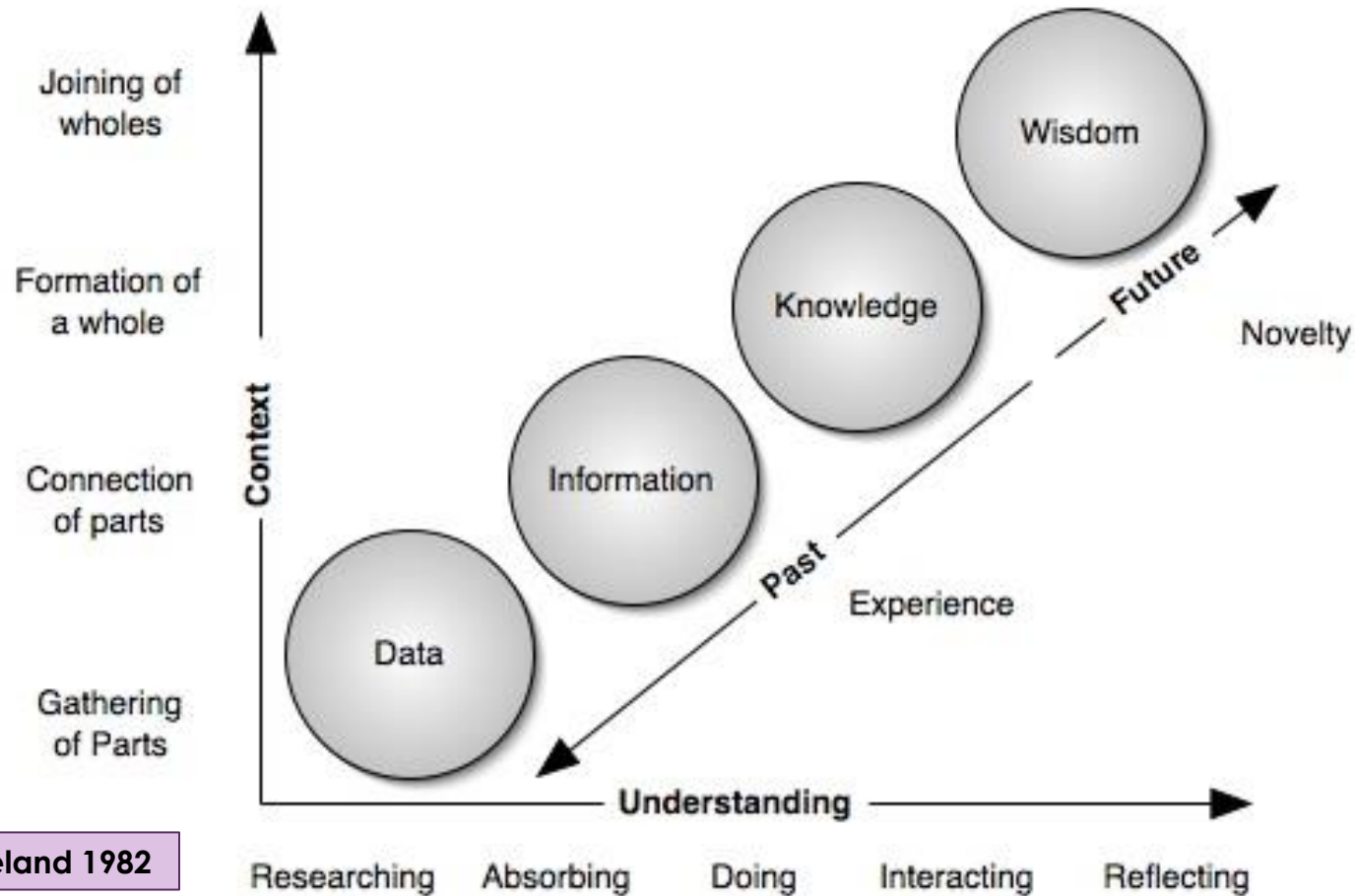
Knowledge	Understanding
Fact-based	Essence-based
Logical	Intuitive
Verifiable	Unverifiable
Easy To Communicate	Hard To Communicate
Easy To Acquire	Hard To Acquire

Understanding: *The successful result in trying to understand*

- Knowledge and skill are necessary elements but not the end all
- Requires
 - ❖ The ability to “do”
 - ❖ Self-assessment
 - ❖ Justify
 - ❖ Critique
- Figuring out which knowledge to use and/or how to adapt

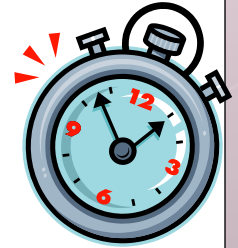


Understanding is Continuum



Misunderstanding

- Students don't always get out of the lesson what we intended
- Not knowing and misunderstanding are different
- You have to have knowledge to have misunderstanding
- Applying what they know in an improper manner = Unsuccessful transfer



9:00

Examples of Misunderstanding

- Are Spanish and English using the same words but pronouncing them differently?
- How can $4.28 + 2.72 = 7$? 7 is not a decimal.
- Heard in HS History: “So what *did* Louisiana purchase?”
- A student wondered as she flew in an airplane across the country why she couldn’t see the lines of latitude and longitude.

Transferability: Does it Matter?

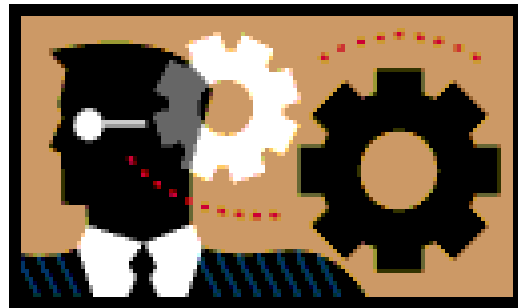
- **Expectation:** to take what we learned in one lesson and apply it to other related, but different situations.
- Teachers can only help students learn a limited number of ideas, facts, skills, examples
- We must help students use that knowledge when confronted by different scenarios or problems.

Evidence of Understanding

- We need to see that a student can extract understanding (meaning) and apply that understanding to problems or performance
- Quite different than just recall of facts
- Assessments must reflect our goal of understanding not just *knowing*.

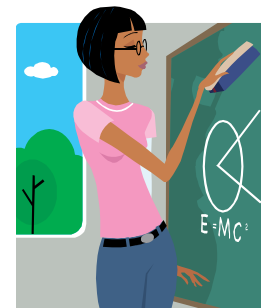
Changing our thinking:

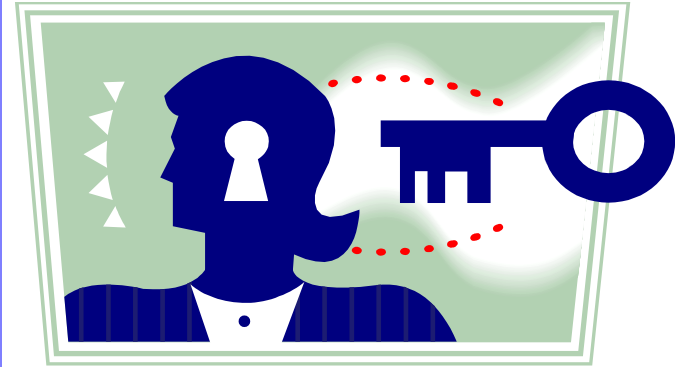
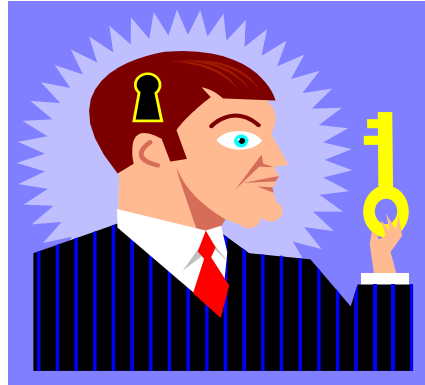
- **DISCUSS AT TABLE:** How does Common Core (KCCRS) change or extend “Understandings”?



Professional Learning:

- How does understanding Understanding impact **professional learning** for educators?
 - ❖ Knowing vs Understanding
 - ❖ Where do you see misunderstanding?
 - ❖ Transferability – are we using what we learn?
 - ❖ Evidence of Understanding





Keys to Understanding

Establishing and Communicating

- *Learning Goals*
- *Big Ideas*
- *Essential Questions*

Setting the Stage for Understanding



- Learning Goals

- ❖ What will learners know and be able to do?
- ❖ Curriculum oriented

- Big Ideas

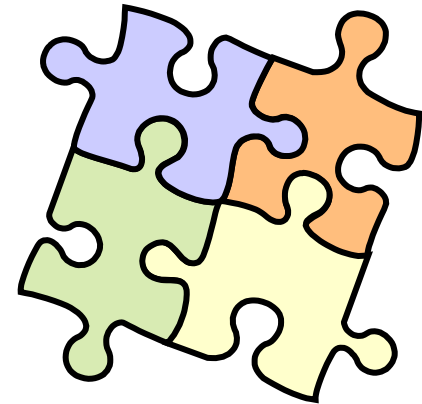
- ❖ Overarching understanding of concepts (goes beyond “knowing” facts)

- Essential Questions

- ❖ Important and essential are not the same
- ❖ Open-ended
- ❖ Interpreting and applying learning
- ❖ If you can “google” it – not essential

6 Facets of Understanding

- Understanding is multi-dimensional and complicated
- **6 sided view of understanding**
 1. *Can explain*
 2. *Can interpret*
 3. *Can apply*
 4. *Have perspective*
 5. *Can empathize*
 6. *Have self-knowledge*



6 Facets of Understanding

1. Explain

- ❖ why, how, supporting opinions, show their work
- ❖ Support, justify, generalize, predict, prove, verify, substantiate

2. Interpretation

- ❖ Meaning, matter, who cares?
- ❖ Connections to real world, human experience, and me

6 Facets of Understanding

3. Application:

- ❖ Using knowledge effectively in new situations and diverse realistic contexts
- ❖ How and when to use a particular knowledge or skill
- ❖ Matching knowledge content to context

4. Perspective

- ❖ Critical and insightful points of view
- ❖ Confront alternative theories & ideas
- ❖ What of it? What is assumed? What follows?

6 Facets of Understanding

5. Empathy

- ❖ The ability to get inside another person's feelings and view
- ❖ Insight:
 - Helps with understanding their point of view
 - Helps to understand the author to improve one's own understanding

6. Self-Knowledge

- ❖ To know one's own ignorance, thought process, and bias
- ❖ Questioning our beliefs and assumptions



Connecting & Reflecting

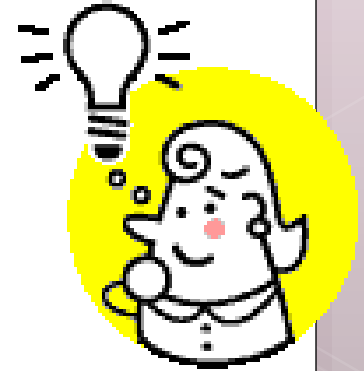
Reflecting on Your Own Practice:

- Which of the 6 Facets of Understanding do you typically include in your lessons/units of study? Why? Why not?
- What would have to change in order for you to include all 6 Facets of Understanding on a regular basis?



Making Connections:

- What evidence suggests that understanding is complex, with many layers?
 - ❖ Identify misunderstandings can be anticipated
- How do the 6 Facets fit with what the **KCCRS** are asking teachers and students to do?
 - ❖ What evidence of understanding is being asked for?



Kansas College and Career Ready Standards
for Science



Making Connections to Practice

- **Quick Write:** *How can utilizing the 6 Facets help achieve the goals set forth in the Anchor Standards?*

- ❖ **Share at your table**

- **Application:** Take a topic & identify how each of the 6 Facets would apply.

- ❖ **Share with 12:00 Clock Buddy**



Making Connections to Practice



o **Application:** Take a topic (use one of your own or select one below) & identify how each of the 6 Facets would apply.

❖ **Share with 12:00 Clock Buddy**

Potential Topics

- Westward Expansion of the US
- Hitler's Treatment of the Jews
- A recipe for pizza or your favorite dessert
- The use of percentages
- Decimals and fractions
- The use of commas and other punctuation
- Basketball Defensive strategies (zone vs man-to-man)
- Speed
- Angles and/or geometric shapes
- Mammals

Making Connections: Changing One's Practice



FROM

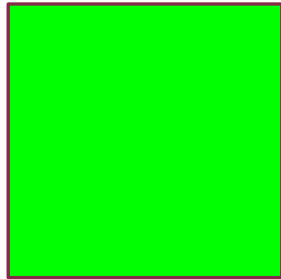
- What are you doing now...

TO

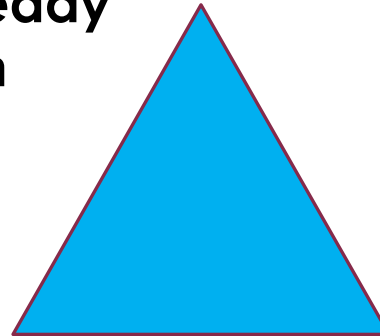
- What you want to (or should) do...



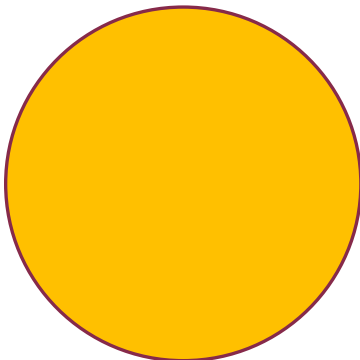
Exit Activity: Square, Triangle, Circle



Something that you understand or already knew (square with your thinking)



3 new things you learned or plan to do with the information you received today.



Something that is still “circling” in your head.... Question... concern.... Future application...

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