

Deepening Thinking Bloom's Taxonomy

Professional Development
October 18, 2017

Agenda

- What is Bloom's Taxonomy?
- How does Bloom's apply to the classroom?
- How can I use Bloom's in my planning?
- How deeply are my students thinking?

TELL ME AND I
FORGET.

TEACH ME AND I
REMEMBER.

INVOLVE ME AND I
LEARN.

- B E N J A M I N F R A N K L I N

Take a trip down memory lane -
when you were a student - -

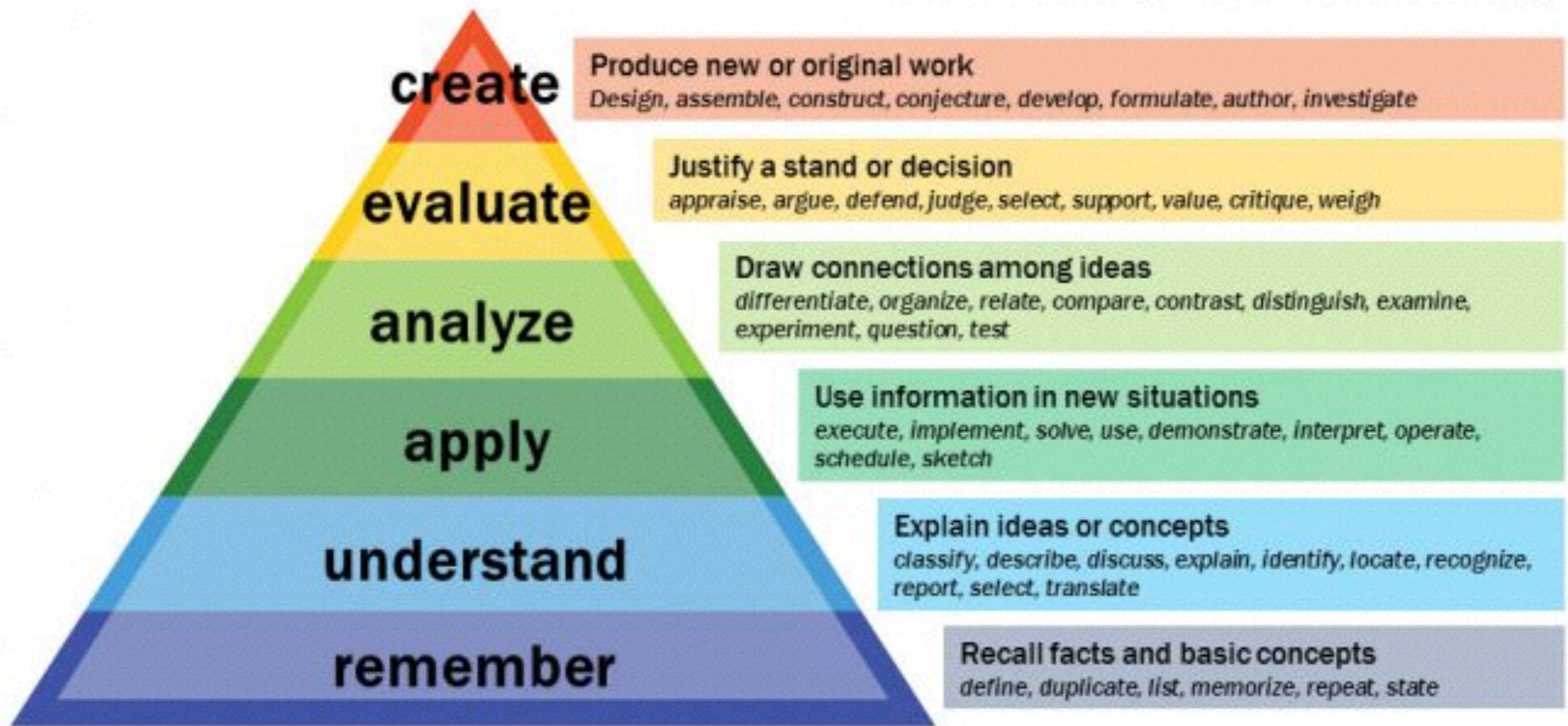
Think about your favorite school memory
regarding something (content) that you learned.

What is that memory?

What makes it memorable?

Bloom's Taxonomy

Bloom's Taxonomy



Try to recognize the
stage of Blooms - -

What level of Bloom's do you think this is?

Use a protractor to measure the angles of a triangle.

Applying (APPLICATION)

What level of Bloom's do you think this is?

List the major parts of a cell.

Remembering (KNOWLEDGE)

What level of Bloom's do you think this is?

Write a song from the perspective of the Early American colonists regarding the impending revolution against England.

Create (SYNTHESIS)

What level of Bloom's do you think this is?

Read Edgar Allen Poe's poem, The Raven, and determine the theme based on text references.

Analyze (ANALYSIS)

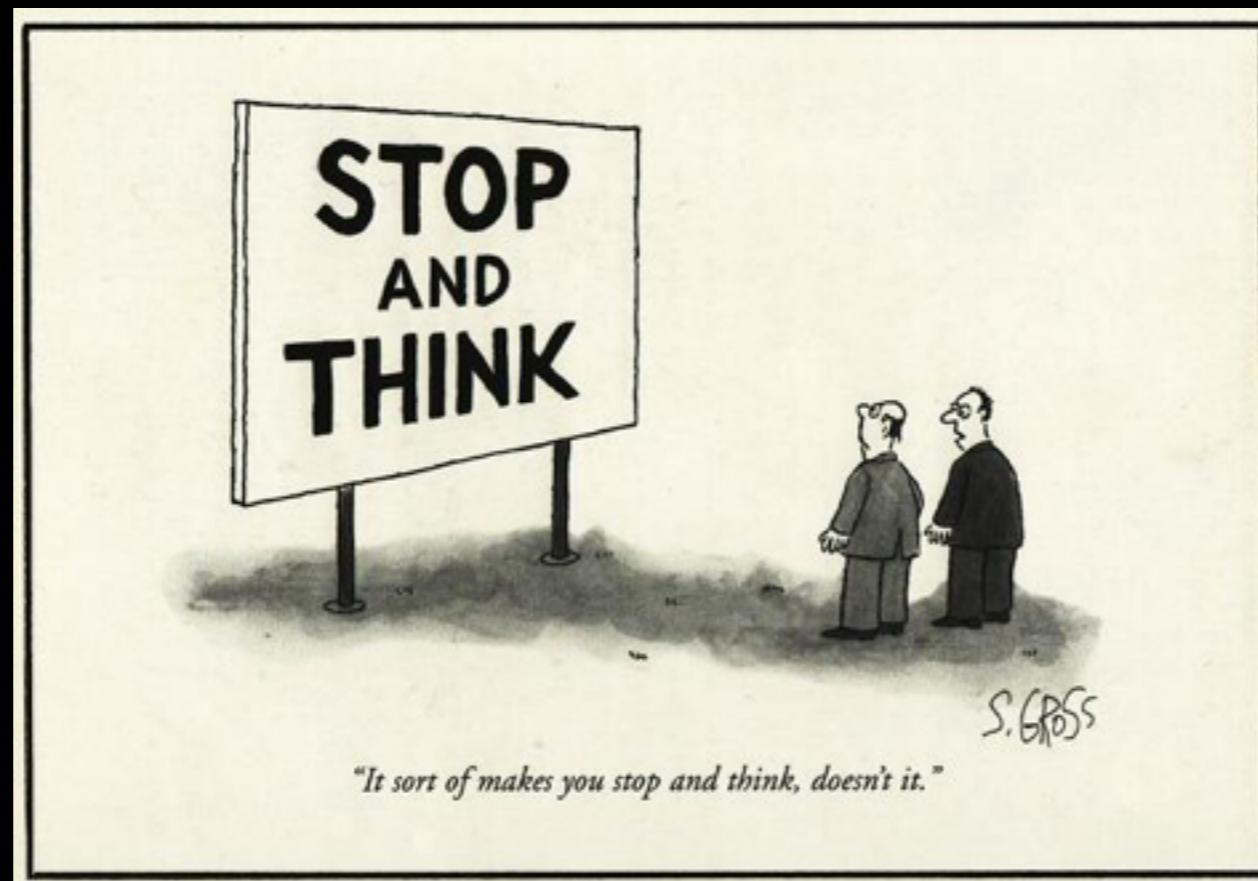
What level of Bloom's do you think this is?

Critique a student's art or writing and offer suggestions on how the artist/writer can improve their piece or their process.

Evaluate (EVALUATION)

Some notes about Bloom's

- Students should be learning at every level of Bloom's.
- Student's cannot get to higher order thinking skills without moving through the lower order.
- How often are we challenging students to go beyond knowledge and comprehension?



How can Bloom's be
used to help plan
instruction in your class?

Why use Bloom's to plan instruction?

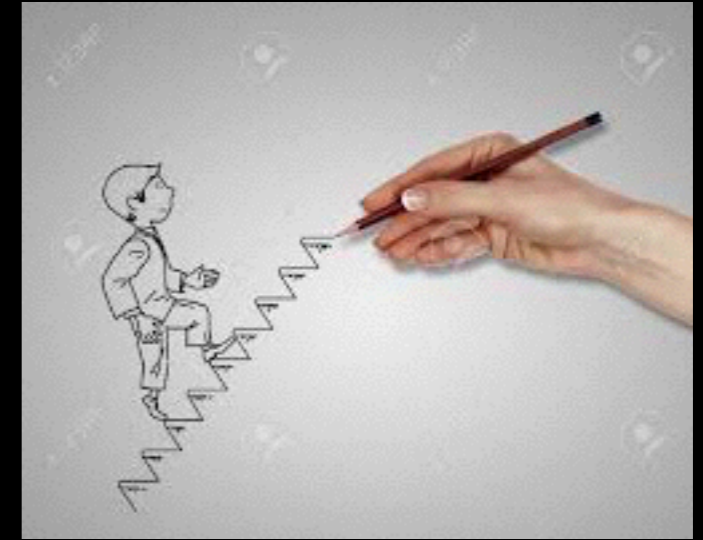
Having an organized set of objectives helps teachers to:

- *“plan and deliver appropriate instruction”;*
- *“design valid assessment tasks and strategies”;* and
- *“ensure that instruction and assessment are aligned with the objectives.”*

Cool resource: The Differentiator

Know		Comprehend	
Count	Read	Classify	Interpret
Define	Recall	Cite	Locate
Describe	Recite	Conclude	Make sense of
Enumerate	Record	Describe	Paraphrase
Find	Reproduce	Discuss	Predict
Identify	Select	Estimate	Report
Label	Sequence	Explain	Restate
List	State	Generalize	Review
Match	View	Give examples	Summarize
Name	Write	Illustrate	Trace
Apply		Analyze	
Assess	Instruct	Break down	Examine
Change	Predict	Characterize	Illustrate
Chart	Prepare	Classify	Infer
Choose	Produce	Compare	Limit
Compute	Relate	Contrast	Outline
Construct	Report	Correlate	Point out
Demonstrate	Select	Diagram	Prioritize
Determine	Show	Differentiate	Relate
Develop	Solve	Discriminate	Separate
Establish	Use	Distinguish	Subdivide
Synthesize		Evaluate	
Adapt	Invent	Appraise	Interpret
Categorize	Modify	Argue	Judge
Compose	Organize	Assess	Justify
Construct	Perform	Choose	Predict
Create	Produce	Compare & Contrast	Prioritize
Design	Propose	Conclude	Prove
Formulate	Reinforce	Critique	Rank
Generate	Reorganize	Decide	Rate
Incorporate	Rewrite	Defend	Reframe
Integrate	Structure	Evaluate	Support

Keeping Bloom's in mind during unit planning



- Write unit goals for the developmental level of your students.
- Each lesson objective should then build to progress students towards that learning goal.
- Students can not reach a higher level of critical thinking without experiencing lower level activities first.
- Consider student achievement levels and the pre-requisite knowledge when writing learning objectives.
- If your students already demonstrate a certain level of proficiency, keep moving them up the taxonomy.
 - Can students already solve problems with fractions (application)? If so, you should guide them to compare fractions with different denominators to determine which is greater (analysis).
 - Can students already reconstruct the plot of a fairy tale so that it is set in the present day (synthesis)? If so, you should ask them to judge whether the main character was justified in her actions, and defend their opinions (evaluation).

Sample Unit Plan

Unit Goal: Understand the functions of different parts of a cell and how they contribute to cell operation	
Objective:	Cognitive Level:
The student will be able to label 10 major organelles in plant and animal cells.	
The student will be able to explain the function of ten major organelles in plant and animal cells.	
The student will be able to create a model of the cell.	
The student will be able to compare the cell to a factory, and specify which organelle parallels each component of the factory.	
The student will be able to demonstrate how multiple cells combine in form and function to create tissues.	
The student will be able to predict how a cell's operation would change if certain parts were removed.	

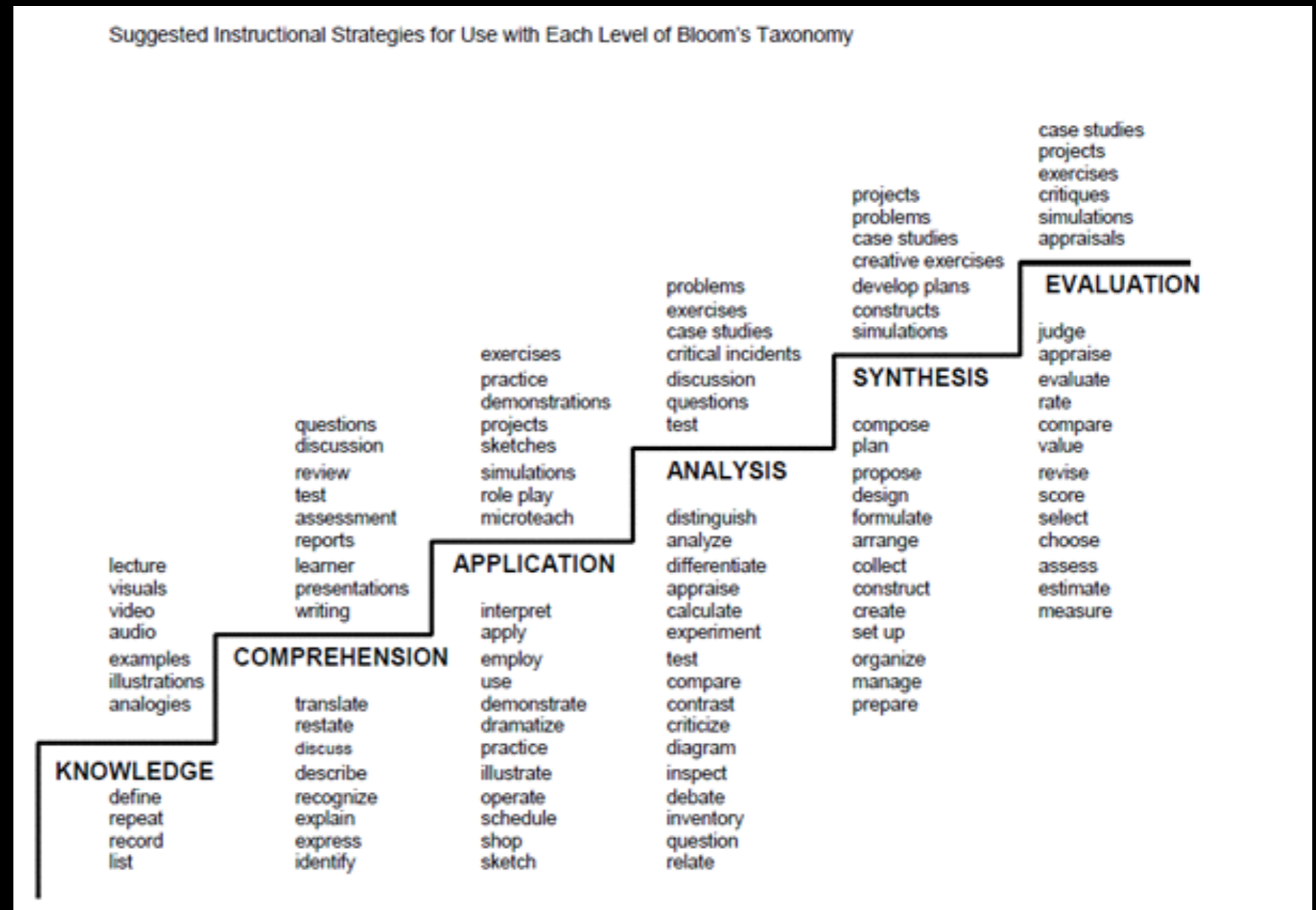
This is a unit layout for a 7th grade life science class.

Notice that objectives build on one another and lead to the overarching unit goal.

How can Bloom's be used when writing and planning assessments?

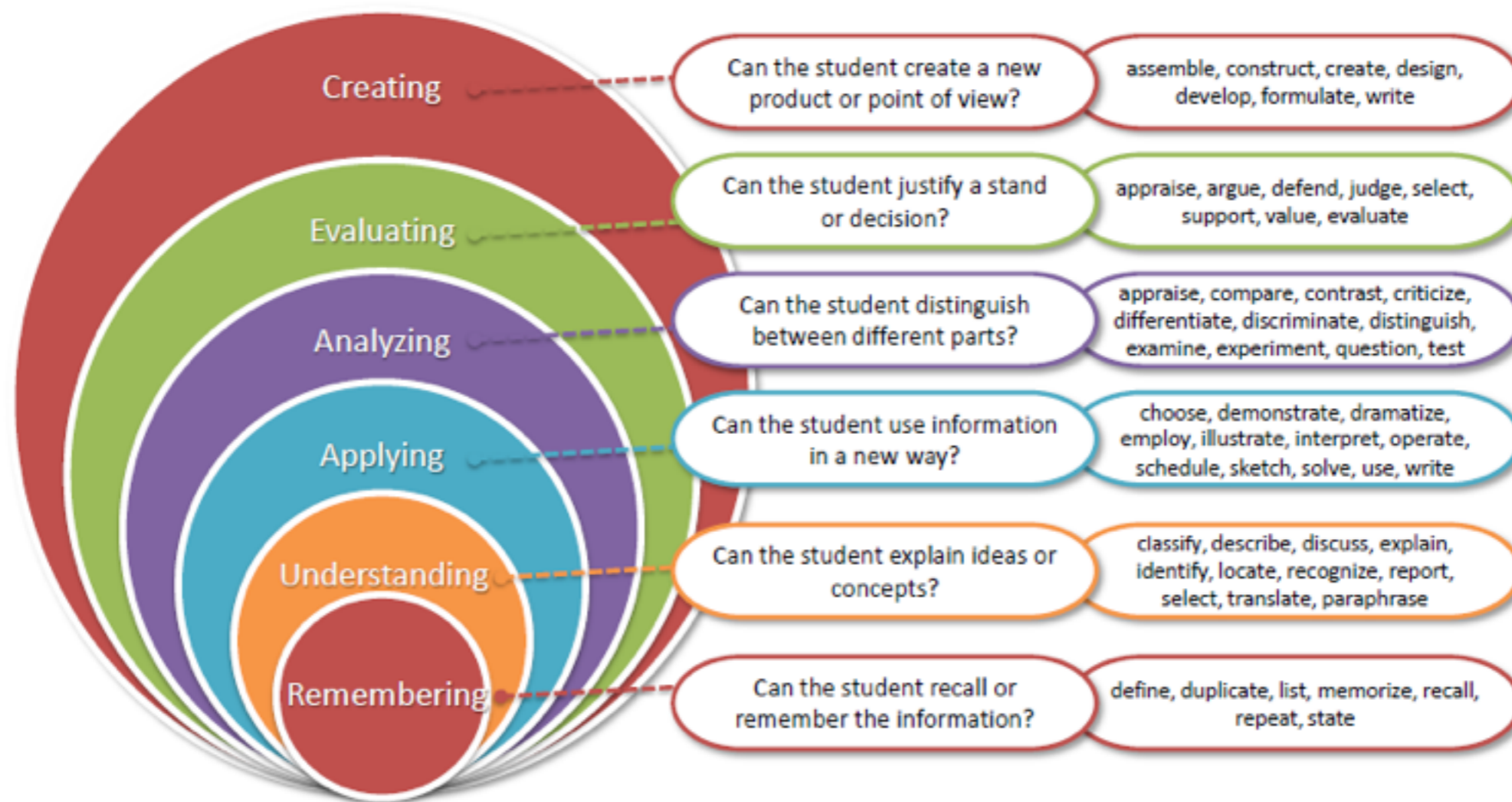
Keeping Bloom's in mind when planning assessments

- On an objective exam or quiz, the following levels of Bloom's can be considered:
- Remembering
- Understanding
- Applying
- Analyzing



How do we move students into the higher levels of Bloom's?

Bloom's Taxonomy (Revised)



Final Thoughts?

What today has sparked your thinking regarding your teaching and/or student learning?

Small group time

- Objective: to analyze classroom artifacts for levels of Bloom's taxonomy
- **In department groups, take some time to bring some classroom artifacts to the table. Remember to bring artifact.**
 - Test
 - Activity/Lab
 - Project
- Ask your department to look through your artifact. You can trade with a partner or distribute to your group. Either way, try to look at 3 - 4 different artifacts in your time together.
- See prompts on page for guidance.

Small group time - locations

- Math team - Clayton's room
- History team - Adams' room
- Science team - originally in Klingenberg's room, but may need to switch.
- Electives and more team - Klingsmith's room (right here!)