Agenda
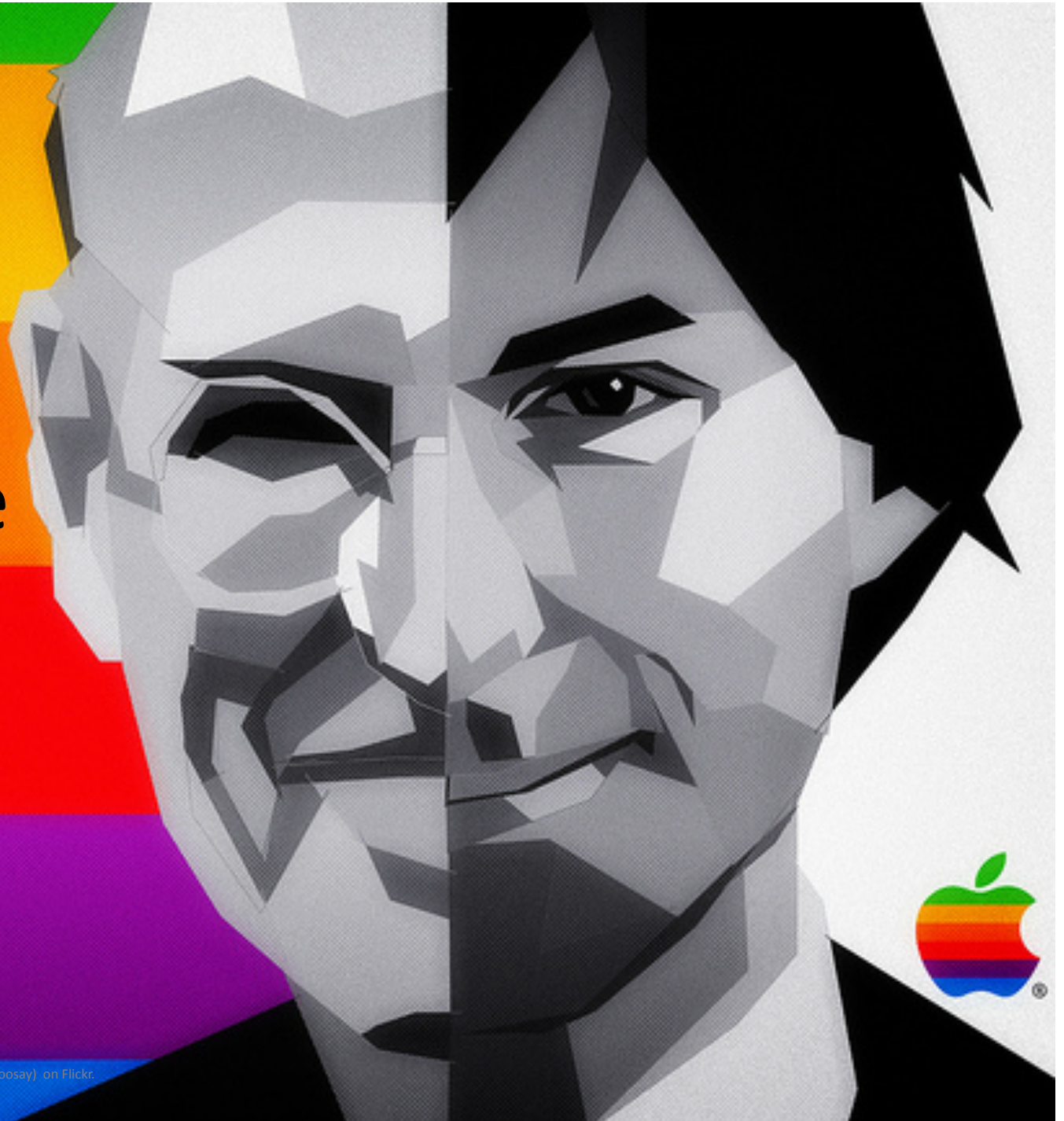
- Creative Expression vs. Creative Thinking

- Challenges for Implementation

- Practical Application

Turn and Talk:

What made Steve Jobs special?

Share Out
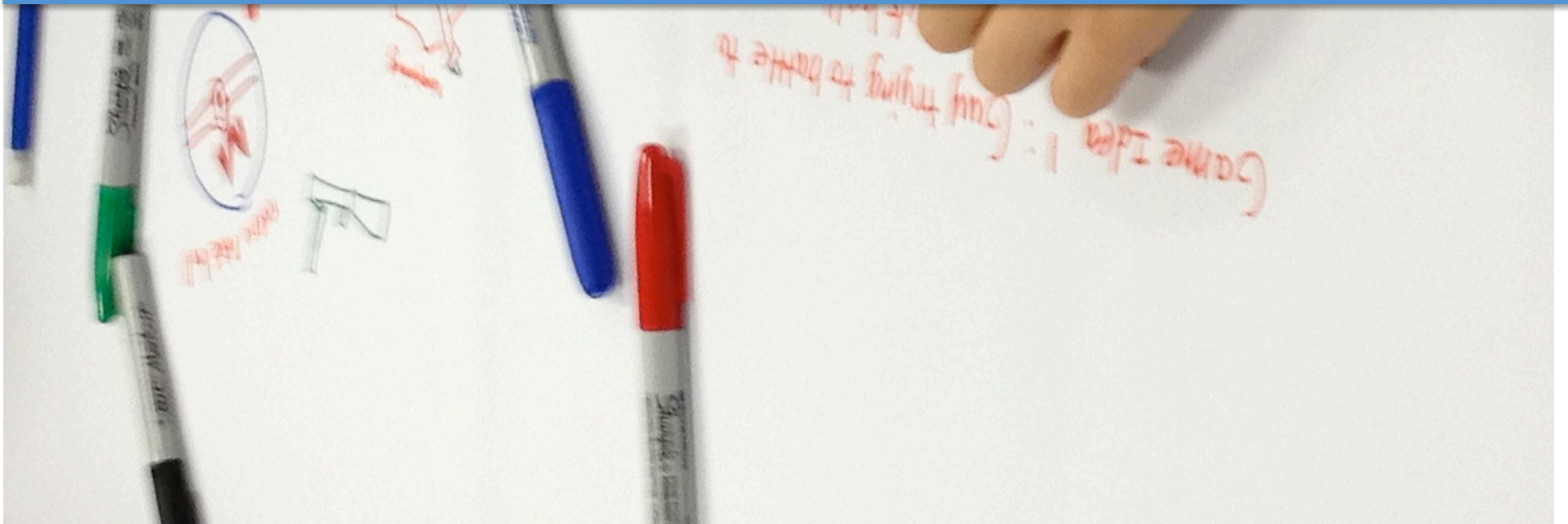
Creativity.

Creativity

Creative Expression

Creative Thinking

Why does the difference matter for you as a school leader?

Creative Expression

- **Perceived by many teachers as achievable by** merely "doing stuff" (e.g., "draw a picture," "make up a song" with little metric for success

- Most teachers are **not artists** and do not know how to teach aesthetic skills

- **Often erroneously defined** by tools, not process (e.g., "Use markers," "Add glitter," "Include pictures,")

- Vague language → Vague Results

Creative Thinking

- **Defined by process and product**

- **Defined by what was created, not the tools that were used**

Creative Thinking

Creating something new based on existing inspiration ("standing on shoulders of giants")

- Dyson Vacuum
- Hybrid Cars
- Shakespeare cribbing from Marlowe

Mashing up ideas, products, and/or information from various sources and creating something new

- Lady Gaga's Meat Dress
- "God Bless America" song
- "Hey, Girl" meme

Porting a perspective from one field/set of experiences into another, for new results

- Gamers using pattern-recognition skills to help scientists sorting out how proteins fold
- School walkthroughs adapted from med school rounds

Creative Thinking

- "Synthesis +"
- "Force your mind to *not* look analytically to provoke 'out-of-the-box' thinking" – D. Abilock
- Rarely spontaneous
- Often requires meticulous thinking, prototyping, testing, experimenting → Takes time

Challenges to Developing Creative Thinking

1. Attuned to emotions
2. Caring
3. Thoughtful
4. Concerned about others
5. Avoids conflict
6. Doesn't want others to feel bad

1. Organized
2. Likes to set, follow rules
3. On-time and dependable
4. Efficient
5. Good follow-through
6. Respects/follows authority

Which Are You?

1. Curious
2. Mind over emotion
3. Logical
4. Looks for patterns
5. Interested in solving problems
6. Thinker

1. Spontaneous Adventurous
2. Free-thinking
3. Enjoy fun; playful
4. Artsy
5. Resists rules

1. Attuned to emotions
2. Caring
3. Thoughtful
4. Concerned about others
5. Avoids conflict
6. Doesn't want others to feel bad

1. Organized
2. Likes to set, follow rules
3. On-time and dependable
4. Efficient
5. Good follow-through
6. Respects/follows authority

The majority of your staff is …

1. Curious
2. Mind over emotion
3. Logical
4. Looks for patterns
5. Interested in solving problems
6. Thinker

1. Spontaneous Adventurous
2. Free-thinking
3. Enjoy fun; playful
4. Artsy
5. Resists rules

1. Attuned to emotions
2. Caring
3. Thoughtful
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6. Doesn't want others to feel bad

1. Organized
2. Likes to set, follow rules
3. On-time and dependable
4. Efficient
5. Good follow-through
6. Respects/follows authority

Creative and innovative thinkers are...

1. Curious
2. Mind over emotion
3. Logical
4. Looks for patterns
5. Interested in solving problems
6. Thinker

1. Spontaneous Adventurous
2. Free-thinking
3. Enjoy fun; playful
4. Artsy
5. Resists rules

Blue

1. Attuned to emotions
2. Caring
3. Thoughtful
4. Concerned about others
5. Avoids conflict
6. Doesn't want others to feel bad

Gold

1. Organized
2. Likes to set, follow rules
3. On-time and dependable
4. Efficient
5. Good follow-through
6. Respects/follows authority

True-Colors.com

Additional Source: lifehack.org/articles/management/discover-yours-and-others-true-colors-for-effortless-collaboration.html

Green

1. Curious
2. Mind over emotion
3. Logical
4. Looks for patterns
5. Interested in solving problems
6. Thinker

Orange

1. Spontaneous Adventurous
2. Free-thinking
3. Enjoys fun
4. Artsy
5. Resists rules
6. Playful

Turn and Talk:
Based on this short exercise, what challenges do you see as your staff works to implement P21's 4c's?

Today's students are moving beyond the basics and embracing the 4C's — "super skills" for the 21st century!

Communication
Sharing thoughts, questions, ideas, and solutions

Collaboration
Working together to reach a goal — putting talent, expertise, and smarts to work

Critical Thinking
Looking at problems in a new way, linking learning across subjects & disciplines

Creativity
Trying new approaches to get things done equals innovation & invention

For more 4C resources from the Partnership for 21st Century Skills, including the animated film ABOVE & BEYOND by Peter H. Reynolds & FableVision, journey to www.p21.org/4Cs
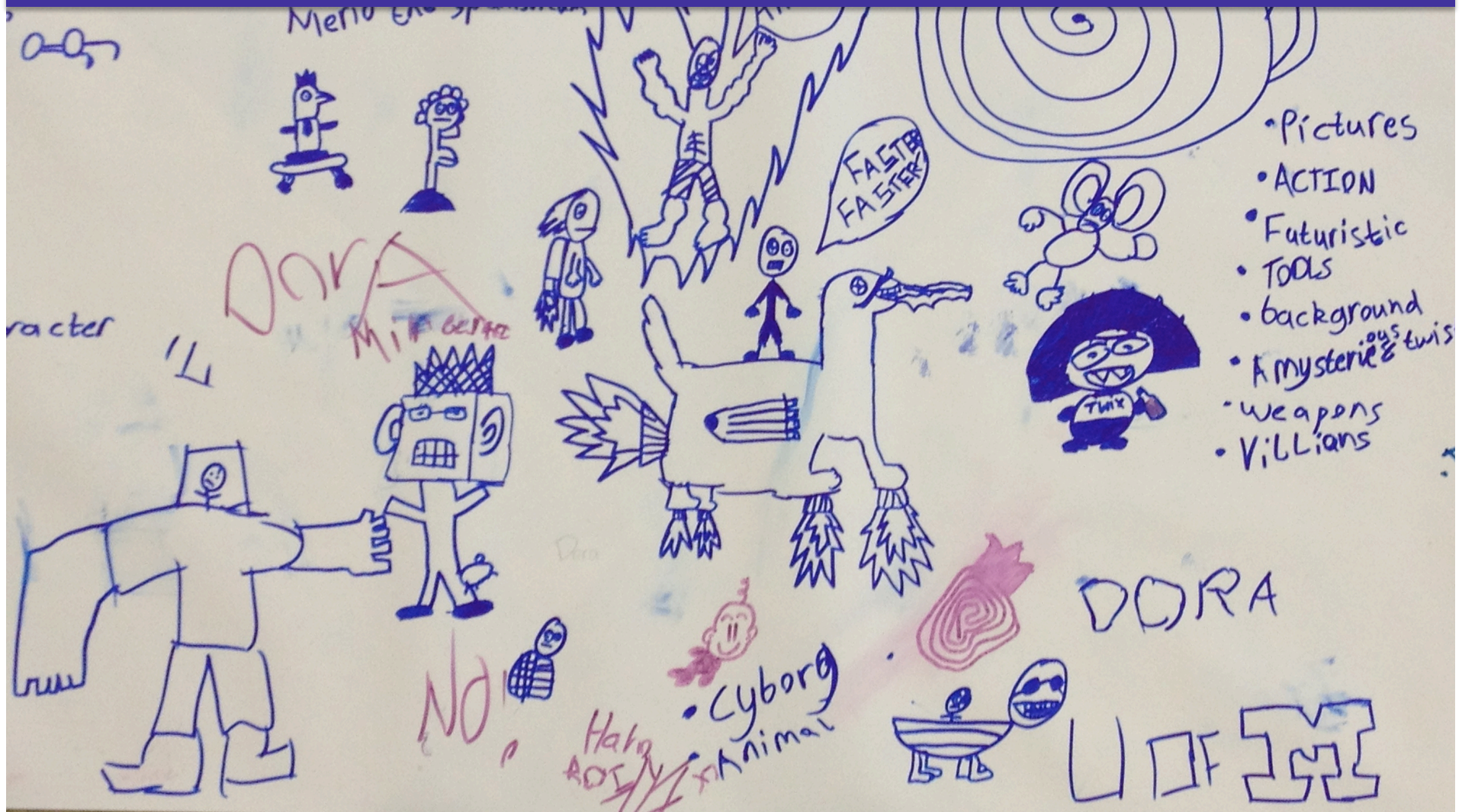
PARTNERSHIP FOR 21ST CENTURY SKILLS

FableVision

http://www.p21.org/storage/documents/4csposter.pdf

Challenge

Many school personnel like authority and consistency and *dislike* messy, iterative, or non-linear work

Creativity: Asset or Burden in the Classroom?

Erik L. Westby
Department of Psychology
Union College

V. L. Dawson
Department of Psychology
Skidmore College

ABSTRACT: Two studies were conducted to examine teachers' perceptions of creative students. Study 1 was based on earlier works that identified personality characteristics associated with creativity. The prototypicality of these characteristics as they applied to creative children was rated by college students. Elementary school teachers were then asked to rate their favorite and least favorite students based on these characteristics. There was a significant difference between the teachers' judgments of their favorite and least favorite students on these measures. The favorite student were neg-

plications for the promotion of creativity in education are discussed.

One of the most consistent findings in educational studies of creativity has been that teachers dislike personality traits associated with creativity. Research has indicated that teachers prefer traits that seem to run counter to creativity, such as conformity and unquestioning acceptance of authority (e.g., Bachtold, 1974; Cropley, 1992; Dettmer, 1981; Getzels & Jackson, 1962; Torrance, 1963). The reason for teachers' preferences is quite clear—creative people tend to have traits that some have referred to as *obnoxious* (Torrance, 1963). Torrance (1963) described cre-

Creativity: Asset or Burden in the Class[room]

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From the lit review, pp. 1-2:

"Research has indicated that teachers prefer traits that seem to run counter to creativity, such as conformity and unquestioning acceptance of authority …

"The reason … is quite clear … creative people tend to have traits that some have referred to as *obnoxious* …

"If teachers' concepts of creativity are different from those generally accepted, it seems unlikely they will recognize and nurture those students with creative potential."

Challenge:

If you are trying to build a 4C's kind of school, how do you shift a community that values peace, authority, and sequential thinking so they welcome students' messy creativity and innovation?
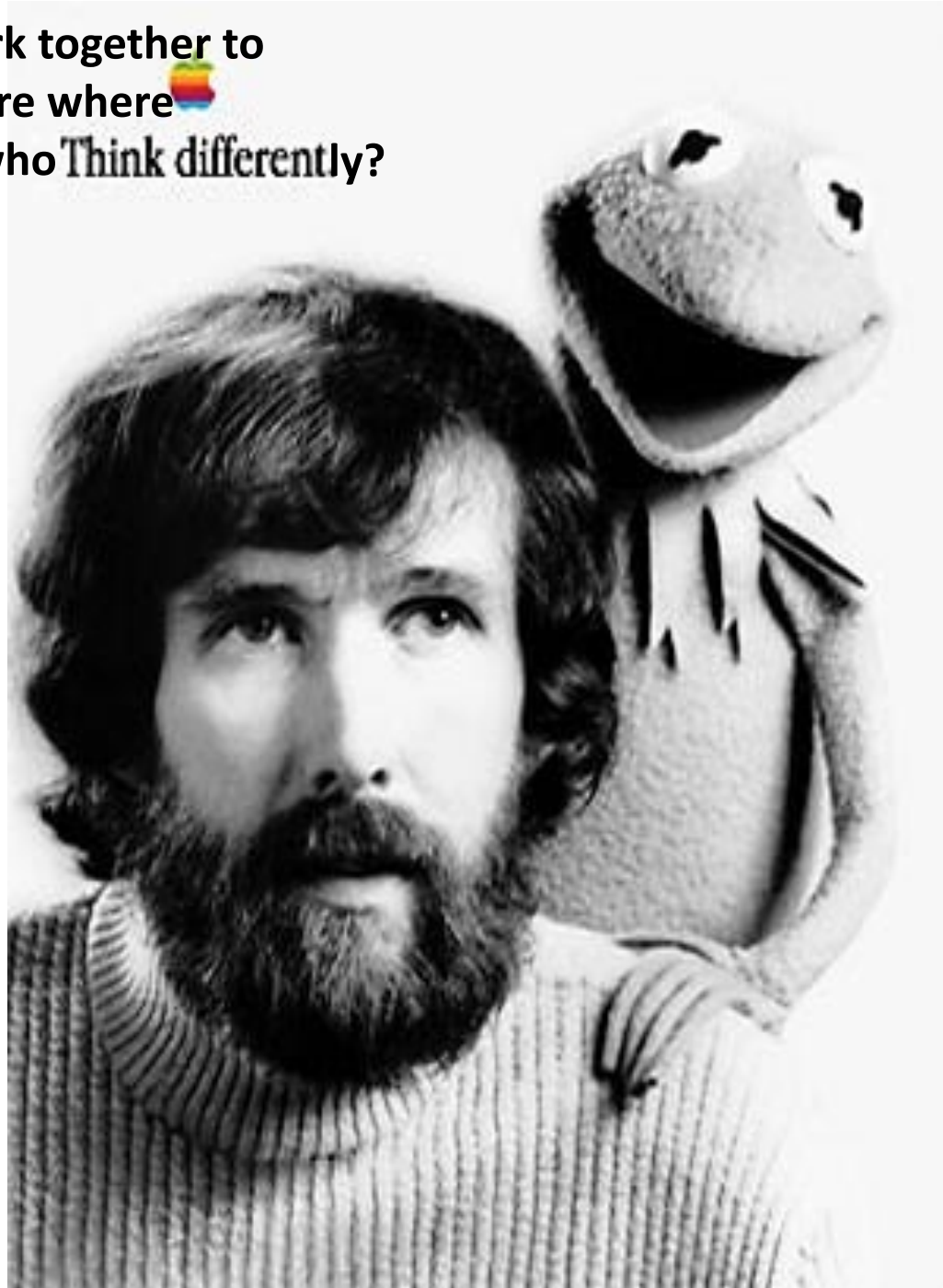
How do we get folks who may not be right-brained to envision learning activities that encourage right-brained thinking?

ACTIVATE!
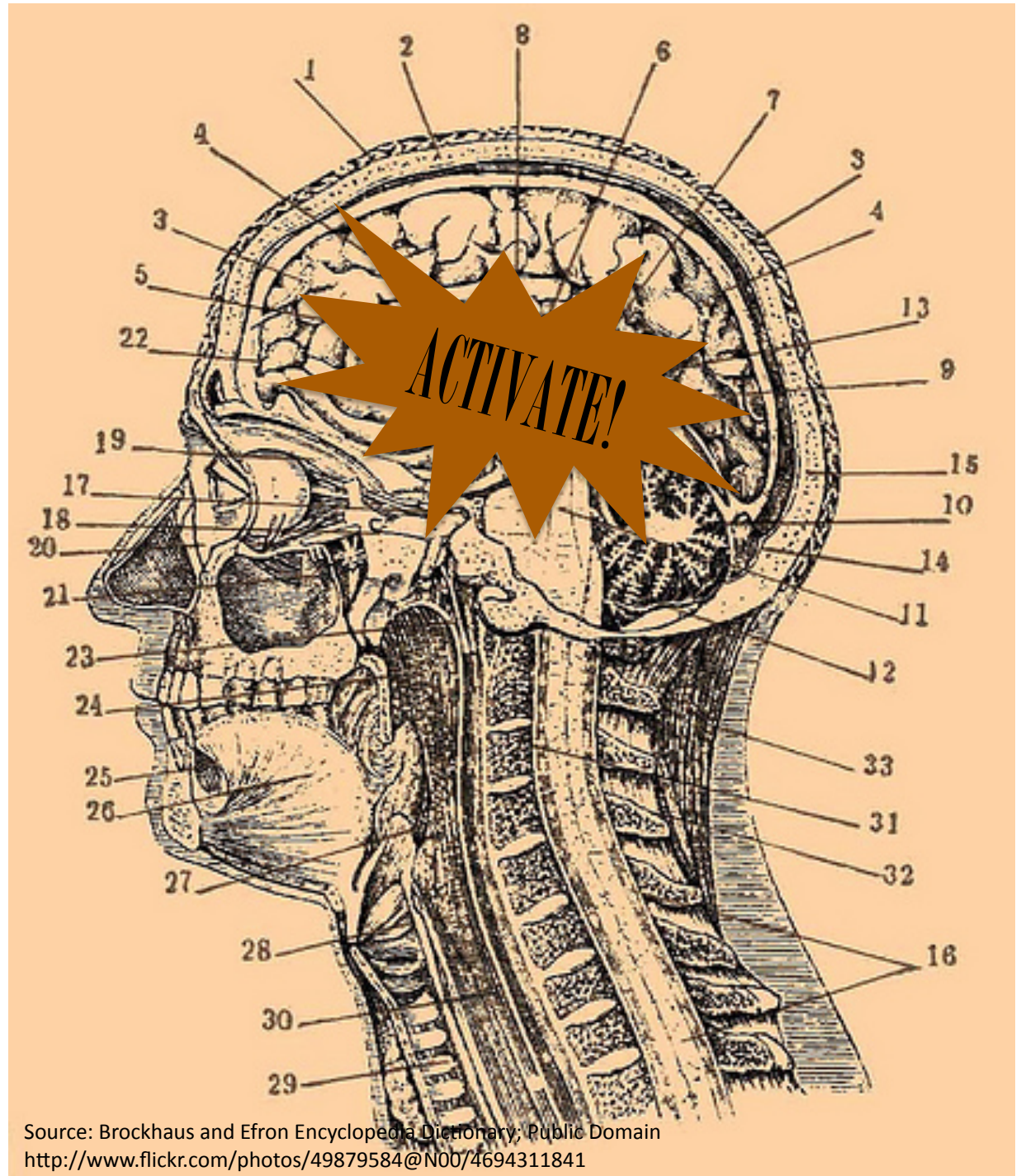
How do we work together to
develop a culture where
we value kids who Think differently?

Date _____

READING PRACTICE TEST

t 3: **Reading Comprehension (cont.)**

ctions: Listen to your teacher read the sentences. Look at the pictures
Choose the sentence that matches the picture. Practice with
example B. Do 3–6 the same way.

mple

F Todd ate cereal.
G I love my horse.
H The weather is nice.

And how do we do that in a **test-obsessed culture**?

Forget About Flashy Tools. Give Teachers Strategies.
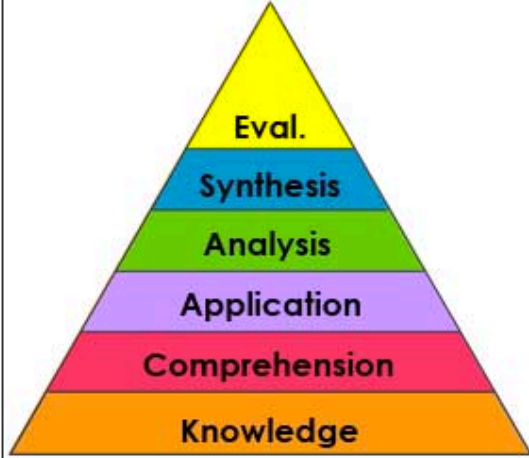
Strategy #1:
Bloom's Is Your Friend.

(Nah, not flower blooms!)

Change the lesson's entry point.
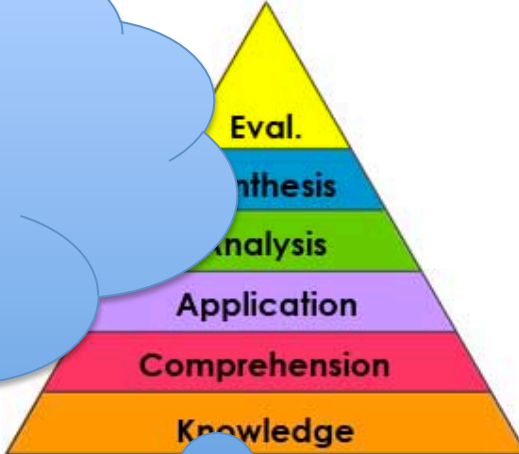
New Version (pyramid, bottom to top): Remembering, Understanding, Applying, Analyzing, Evaluating, Creating

Old Version (pyramid, bottom to top): Knowledge, Comprehension, Application, Analysis, Synthesis, Eval.

In 1956, Benjamin Bloom headed a group of educational psychologists who developed a classification of levels of intellectual behavior important in learning. During the 1990's a new group of cognitive psychologists, lead by Lorin Anderson (a former student of Bloom), updated the taxonomy to reflect relevance to 21st century work. The two graphics show the revised and original Taxonomy. Note the change from nouns to verbs associated with each level.

Note that the top two levels are essentially exchanged from the traditional to the new version.

Remembering: can the student recall or remember the information?	define, duplicate, list, memorize, recall, repeat, reproduce state
Understanding: can the student explain ideas or concepts?	classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase
Applying: can the student use the information in a new way?	choose, demonstrate, dramatize, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write.
Analyzing: can the student distinguish between the different parts?	appraise, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test.
Evaluating: can the student justify a stand or decision?	appraise, argue, defend, judge, select, support, value, evaluate
Creating: can the student create new product or point of view?	assemble, construct, create, design, develop, formulate, write.

http://ww2.odu.edu/educ/roverbau/Bloom/blooms_taxonomy.htm

Change the lesson's scope and depth.

Remembering: can the student recall or remember the information?	define, duplicate, list, memorize, recall, repeat, reproduce state
Understanding: can the student explain ideas or concepts?	classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase
Applying: can the student use the information in a new way?	choose, demonstrate, dramatize, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write.
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http://ww2.odu.edu/educ/roverbau/Bloom/blooms_taxonomy.htm

As we promote creative thinking, which of these activities do we see? How can I use this vocabulary to communicate my expectations/hopes to my classroom colleagues?

Bloom's Tips

- Bloom's is not a sequential ladder!
- Bloom's documents different kinds of learning but **does not require** that one level be mastered before moving to another.
- Students are not empty vessels. Build on their prior knowledge!

Bloom's In Action

- **Before:** List the characteristics that define a mammal.

- **After:** The OurSchool Video Club is working on animations for an upcoming school broadcast. They need a new mammal! Draw and label a *new mammal* that doesn't yet exist. Label the parts that make it a mammal.

Strategy #2:
Problem-Based Learning

"Here's an authentic problem … how might you solve it?"

PBL Tips

- The problem should be as authentic as possible.

- The problem should not have an obvious solution – your teachers can model genuine uncertainty.

- The proposed solution should be defended with evidence from text, hands-on inquiry, or other areas.

PBL in Action

- **Before:** Write a report about a form of alternative energy.

- **After:** Although Texas is an oil-rich state, the demand for oil alternatives is rising throughout the country. To stay competitive for future generations, what alternate forms of alternative energy should be investigated in your region and why?

Strategy #3: Time and Space Travel

"You can travel in space and time to view or change events from history. What if...?"

Tips for Time and Space Travel

- Give students access to the necessary historical information.

- Prioritize summarizing over paraphrasing of information.

- Consider the power of role-play, character construction, and point of view.

Time and Space Travel in Action

- **Before:** Answer the questions about the Boston Massacre at the end of the chapter.

- **After:** You are the Town Crier the evening of the Boston Massacre. Based on what you have learned from your chapter, construct a 50-word summary of what happened that night.

"You are there!" Strategy

Requires students to summarize, not retell, but they must know the low-level facts in order to complete the task.

And That's Just The Tip of the Iceberg...

Questions?

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@activelearning

http://bit.ly/fontblog