




Math is Better with C.R.E.A.M. on Top!

Culturally Responsive - Equitable - Accessible - Meaningful

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**Math is Better
with C.R.E.A.M. on Top!**

C-Culturally

R-Responsive

E-Equitable





A-Accessible

M-Meaningful





Points to Ponder

- What are the common elements found in each picture?
 - How can equality become a hindrance to students?
 - What implications do these pictures have for your classroom practices?
- 
- 
- 
- 

Equity is when every student has what they need to succeed.



National Alliance For Partnerships In Equity | www.napequity.org
DESIGN BASED ON ILLUSTRATION BY AUBREY AND AUBREY BLEDEN

Equality



Equity



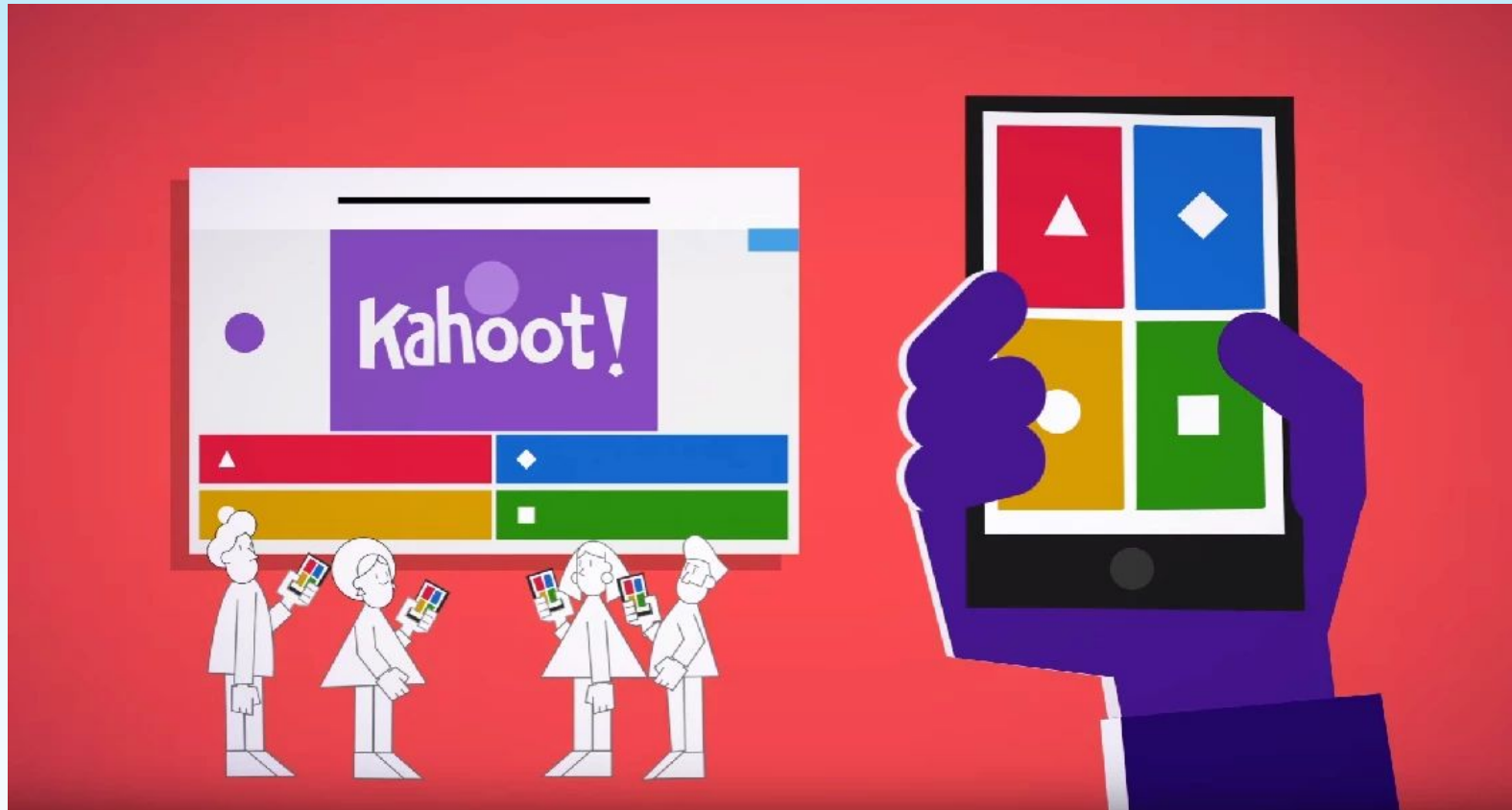
Equality



Equity



www.kahoot.it



Surface Culture

- **observable elements: food, dress, music, holidays**
- **low emotional charge**
- **low anxiety in persons/group**



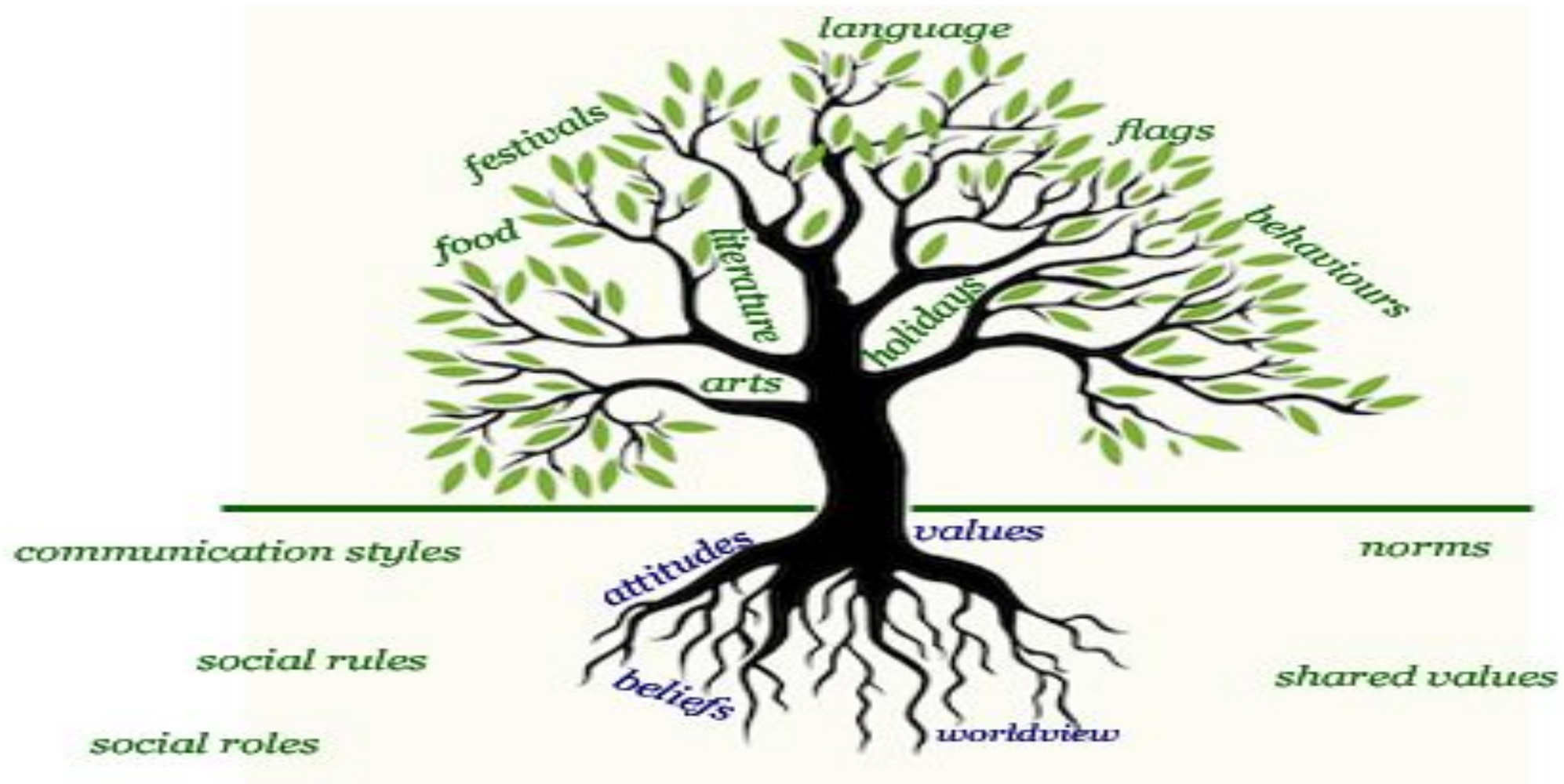
Shallow Culture

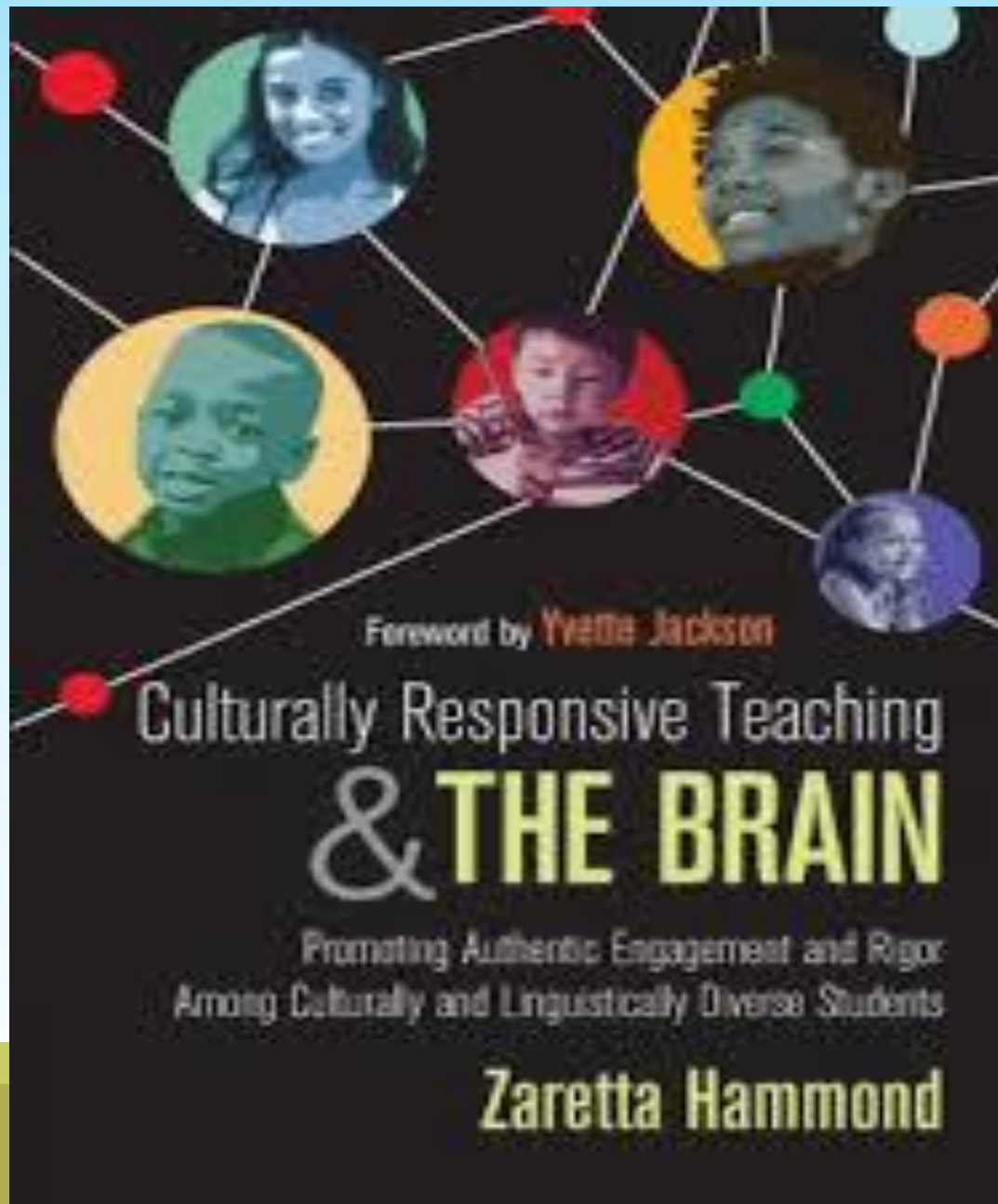
- **unspoken rules, norms**
- **courtesy, time, space, eye contact,**
- **deep cultural values rapport, trust**
- **strong emotional charge: disrespect, offensive, hostile, mistrust, distress, social friction**

Deep Culture

- **unconscious assumptions**
- **understanding of good/bad, spirituality, competition, cooperation**
- **how we learn information, threats/rewards in the environment**
- **intense emotional charge**

If a curriculum does not respond to a culture, then the culture won't respond to the curriculum.





Culturally Responsive Brain Rules

1. The brain seeks to minimize social threats and maximize opportunities to connect
2. Positive relationships keep our safety-threat system in check.
3. Culture guides how we process information.

4. Attention drives learning
5. New information must merge with prior knowledge to be learned
6. The brain grows through challenge and stretch for more complex thinking/learning.

READY FOR RIGOR A FRAMEWORK FOR CULTURALLY RESPONSIVE TEACHING

AWARENESS

- Know and own your cultural lens.
- Understand the three levels of culture.
- Recognize cultural archetypes of individualism and collectivism.
- Understand how the brain learns.
- Acknowledge the sociopolitical context around race and language.
- Recognize your brain's triggers around race and culture.
- Broaden your interpretation of culturally and linguistically diverse students' learning behaviors.

INFORMATION PROCESSING

- Provide appropriate challenge in order to stimulate brain growth to increase intellectual capacity.
- Help students process new content using methods from oral traditions.
- Connect new content to culturally relevant examples and metaphors from students' community and everyday lives.
- Provide students authentic opportunities to process content.
- Teach students cognitive routines using the brain's natural learning systems.
- Use formative assessments and feedback to increase intellectual capacity.

LEARNING PARTNERSHIPS

- Reimagine the student and teacher relationship as a partnership.
- Take responsibility to reduce students' social-emotional stress from stereotype threat and microaggressions.
- Balance giving students both care and push.
- Help students cultivate a positive mindset and sense of self-efficacy.
- Support each student to take greater ownership for his learning.
- Give students language to talk about their learning moves.

COMMUNITY OF LEARNERS & LEARNING ENVIRONMENT

- Create an environment that is intellectually and socially safe for learning.
- Make space for student voice and agency.
- Build classroom culture and learning around communal (sociocultural) talk and task structures.
- Use classroom rituals and routines to support a culture of learning.
- Use principles of restorative justice to manage conflicts and redirect negative behavior.





Watch the following clip.
What elements of the
Ready for Rigor Framework
do you see?





Let's give it a try: Action Thermometer

Read the quote below. Think about whether you agree or disagree with the statement.



Technology is the great equalizer.



Cummins' Model of Academic Language

Cognitively Undemanding

A.

- Art, music, PE
- Following simple directions
- Face-to-face conversations

C.

- Telephone conversations
- Note on refrigerator
- Written directions

Context Embedded

B.

- Demonstrations
- A-V assisted lesson
- Science experiments
- Social studies projects

Context Reduced

D.

- Reading a textbook
- Explanation of new abstract concepts
- Lecture with few illustrations
- Math concepts & application

Cognitively Demanding

Effective Technology Use Makes Learning Accessible

Click on each picture for a teacher tutorial.



Quizlet



Kami



read&write
for Google Chrome™



Kahoot!



nearpod



Effective Technology Use Makes Learning Accessible

Scan to reveal these tools in action!



Quizlet



Kami






Kahoot



Nearpod



Draw and Tell



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*Teachers need to make time
to understand who their students are-*



*not who they wish they were,
not who they are supposed to be,
not who the district says they are,*

but who they are.

*-Debbie Silver
Teacher, Education Week*





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#GCTM2019 @gctm_math

Conference Feedback

Session Feedback

