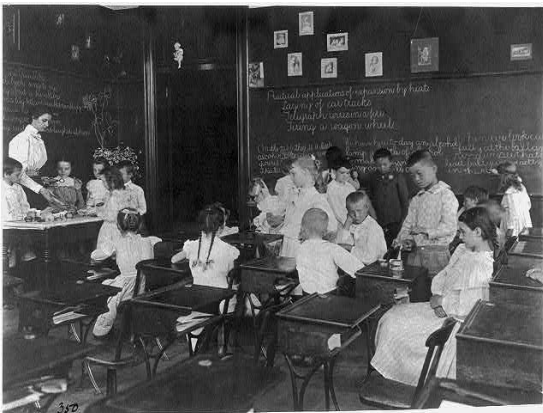


Going Deeper with DI: RAFTS and Cubing

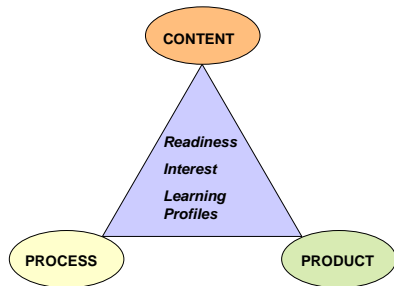
Theresa Gray, Coordinator
School Improvement Program
Erie 2-Chautauqua-Cattaraugus BOCES



Introductions

It is the year 2014 and your school has just been selected as the top school in the region. Prepare a statement to the local news about what your classroom looks like and how that has contributed to the success of your students.

Differentiate What?





“When we differentiate, we give students tools to handle whatever comes their way – differentiated or not. This is why differentiated instruction and standardized testing are not oxymoronic.”

Rick Wormeli. *Fair Isn't Always Equal: Assessing and Grading in the Differentiated Classroom*. (2006)

RAFT



Role of the student. What is the student's role: reporter, observer, eyewitness, object?

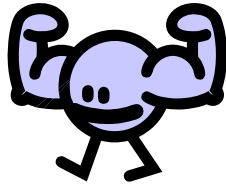
Audience. Who will be addressed by this raft: the teacher, other students, a parent, people in the community, an editor, another object?

Format. What is the best way to present this information: in a letter, an article, a report, a poem, a monologue, a picture, a song?

Topic. Who or what is the subject of this writing: a famous mathematician, a prehistoric cave dweller, a reaction to a specific event?

STRONG VERB!!

- Persuade!
- Support!
- Argue!
- Object!
- Critique!
- Predict!
- Demonstrate!!

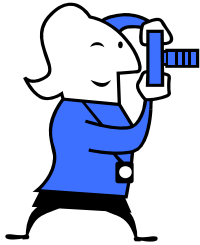


RAFT Activities

	Role	Audience	Format	Topic
Language Arts & Literacy	Semicolon	Middle Schoolers	Diary entry	I Wish You Really Understood Where I Belong
	N.Y. Times	public	Op Ed piece	How our Language Defines Who We Are
	Huck Finn	Tom Sawyer	Note hidden in a tree knot	A Few Things You Should Know
Science	Rain Drop	Future Droplets	Advice Column	The Beauty of Cycles
	Lung	Owner	Owner's Guide	To Maximize Product Life
	Rain Forest	John Q. Citizen	Paste Up "Ransom" Note	Before It's Too Late
History	Reporter	Public	Obituary	Hitler is Dead
	Martin Luther King	TV audience of 2010	Speech	The Dream Revisited
	Thomas Jefferson	Current Residents of Virginia	Full page Newspaper Ad	If I Could Talk to You Now
Math	Fractions	Whole Numbers	Petition	To Be Considered A Part of the Family
	A word problem	Students in your class	Set of Directions	How to Get to Know Me

Format based on the work of Doug Buehl cited in *Teaching Reading in the Content Areas: If Not Me Then Who?* Billmeyer and Martin, 1998

First Step in Designing RAFTS is...



...**FOCUS!**

Learning Goals:
Knows, Understands,
Be able to Dos

Developing RAFTS

What do students need to ...

- **KNOW:** facts, vocabulary, dates/timeline
- **UNDERSTAND:** concepts, relationships
- **DO:** skills!

Literature Example

Concept: Perspective

Lesson Topic: Point of View in *To Kill a Mockingbird*

Know: Definition of Point-of-view

Understand: Truth can look different from different perspectives.

Do: Rewrite a scene from a perspective other than the narrator's.

Elementary Social Studies Example

- Concept: Culture
- Lesson Topic: Country Study
- Know:
 - Foods, celebrations, clothing, and jobs representative of specified countries
- Understand:
 - Every culture has its own unique beliefs, traditions, and behaviors.
- Do:
 - Compare and contrast the foods, clothing, jobs, and celebrations of different countries.
 - Recognize similarities and differences among people of different cultures.

Grade 6 Social Studies RAFT

Students will

Know:

Names and roles of groups in the feudal class system.

Understand:

Roles in the feudal system were interdependent. A person's role in the feudal system will shape his/her perspective on events.

Be Able to Do:

Research

See events through varied perspectives

Share research & perspectives with peers



Feudal System Raft

cont'd

Role	Audience	Format	Topic
King	The Subjects	Proclamation	Read My Lips, New Taxes
Knight	Squire	Job Description	Chivalry, Is it for You?
Lord	King	Contract	Let's Make a Deal
Serf	Animals	Lament Poem	My So Called Life
Monk	Masses	Illuminated Manuscript	Do As I Say, Not As I Do
Lady	Pages	Song	ABC, 123

Following the RAFT activity, students will share their research and perspectives in mixed role groups of approximately five. Groups will have a "discussion agenda" to guide their conversation.

-Kathryn Seaman

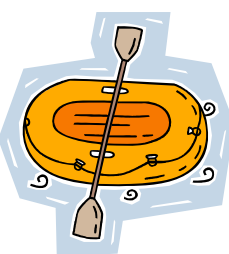
Possible Products



Map	Lecture	Book List	Puzzle
Diagram	Editorial	Calendar	Model
Sculpture	Painting	Coloring Book	Timeline
Discussion	Costume	Game	Toy
Demonstration	Placement	Research Project	Article
Poem	Blueprint	TV Show	Diary
Profile	Catalogue	Song	Poster
Chart	Dialogue	Dictionary	Magazine
Play	Newspaper	Film	Computer
Dance	Scrapbook	Collection	Program
Campaign	Lecture	Trial	Photographs
Cassette	Questionnaire	Machine	Terrarium
Quiz Show	Flag	Book	Petition Drive
Banner	Scrapbook	Mural	Teaching
Brochure	Graph	Award	Lesson
Debate	Debate	Recipe	Prototype
Flow Chart	Museum	Test	Speech
Puppet Show	Learning Center		Club
Tour	Advertisement		Cartoon
			Biography
			Review
			Invention

RAFTs can...

- Be differentiated in a variety of ways: readiness level, learning profile, and/or student interest
- Be created by the students or Incorporate a blank row for that option
- Be used as introductory "hooks" into a unit of study
- Keep one column consistent while varying the other columns in the RAFT grid



Create!

Using the materials supplied:

1. Develop a RAFT to use in your class
2. Differentiate the RAFT
3. Share with a colleague for input

WELCOME BACK!!

Please sit with the following partners:

ORANGE: Sue and Adrienne

GREEN: Katherine and Karen

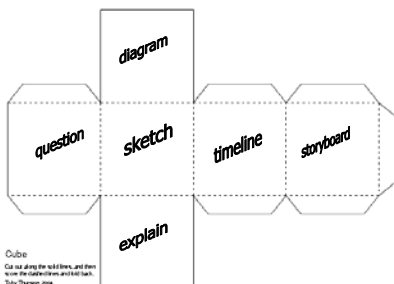
PINK: Carol and Jackie




Cubing

- Describe It**
Look at the subject closely (perhaps with your senses in mind).
- Compare It**
What is it similar to? What is it different from?
- Associate It**
What does it make you think of? What comes to your mind when you think of it? Perhaps people? Places? Things? Feelings? Let your mind go and see what feelings you have for the subject.
- Analyze It**
Tell how it is made. If you can't really know, use your imagination.
- Apply It**
Tell what you can do with it. How can it be used?
- Argue for It or Against It**
Take a stand. Use any kind of reasoning you want—logical, silly, anywhere in between.

Example



Cubing Fractions

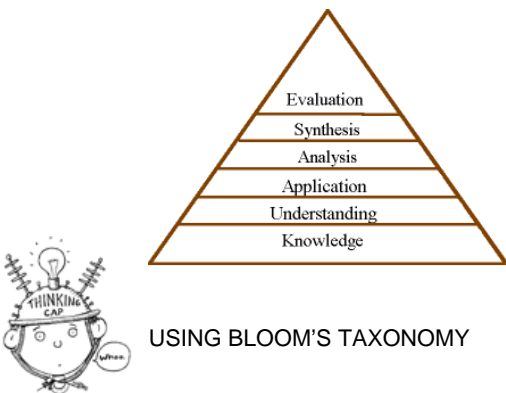


Each student at a table rolls two dice a designated number of times. The 1st dice/cube tells students what to do with a fraction.

- 1 **Order/compare** all the fractions from the smallest number to the largest.
- 2 **Add** 2 rolled fractions together.
- 3 **Subtract** 2 rolled fractions.
- 4 **Divide** 2 rolled fractions.
- 5 **Multiply** 2 rolled fractions.
- 6 **Model** 2 rolled fractions using circles or bars of paper.


•The 2nd cube/dice contains the fraction which can vary in complexity based on student number readiness.

Lynne Beauprey, Illinois



USING BLOOM'S TAXONOMY

CUBING



Directions:

- Work with 2 partners to complete the whole plant cube.
- Roll the dice to see who does each part of the cube.
- Share your work with your partners. Get their "stamp of approval".

List and Define the parts of a plant. Check your spelling, write in sentences.

Draw and Label a plant and all its parts. Tell the job of each part.


Compare each part of a plant to something it is like in your life to show how the things are alike.

Re-design a plant to make sure all its needs are met, but in a "new and better" way. Use words to explain.

Prove that every part of a plant is necessary for the plant to survive. Use words and pictures to show what would happen if any part of the plant got sick.

Build a plant and show how its parts provide for all 5 of its needs.

*After the cubing activities, the teacher leads a closure discussion around the question, "What did we learn about why a plant is made the way it is?"









Think Dots:

Grade 2 Math

Students will tell and write time to the quarter hour, using analog and digital clock.







Think Dots Version 1: Time


 How many fives are in the number 60?	 If it is 5:15pm, how many minutes after 5 is it?	 How many minutes are in quarter after 2:00?
 A soccer player has practice at 6:00pm. Draw what the clock face would look like if soccer practice were an hour and fifteen minutes.	 How many minutes are in quarter till 3:00?	 Create an interesting word problem using the times 4:00pm and 5:15pm.

The Think Dots could be used the following ways:
 Anchor Activity, Pre-assessment, Review, Post-assessment

Down LaCassale

ThinkDOTS: Vocabulary Review


Connect it  An automobile manufacturer wants to use this word as the name for its newest car. They have asked you to design the car-- if this word were a car, what would it look like? Draw a picture.	Define it  What is this word's definition?
Use it  Create a concrete poem using this word as the poem's subject.	Collage it  Create a collage of words and images which represents this word. Do not put the word or the definition on the front of the collage; write them on the back.
Evaluate it  In your opinion, is this word a "good" word or a "bad" word? In other words, is this word useful? Does it do a job that no other word can do?	Personify it  Give this word a personality-- what do you think this word would be like if it were a person? Find another word from our list that you think would either be this word's perfect match or worst enemy, and explain your rationale.



Cubing and Variations

Application:

- 1. Use to lead students into deeper exploration of a concept.
- 2. Use for review before assessment.
- 3. Use as an assessment.





Using the materials supplied:

1. Develop a Cube/Think Dot page to use in your class
2. Differentiate the Cube/Think Dots by creating an additional one – differentiate by readiness, learning style, or interest
3. Share with a colleague for input

Sharing!!

- All RAFTS/Cubes that you have created and would like to share will be posted at:
teachingss.pbwiki.com
- Be sure to include your name/district and date created as a footer!!
