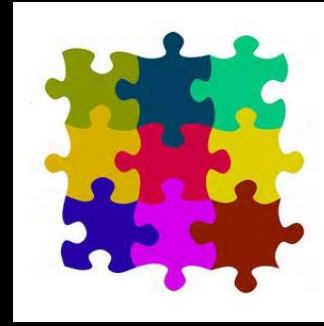




Fundamentals of Differentiating Instruction with Depth and Complexity

Some of Us Were Always Different

MRS. BYRNE A. M. K.

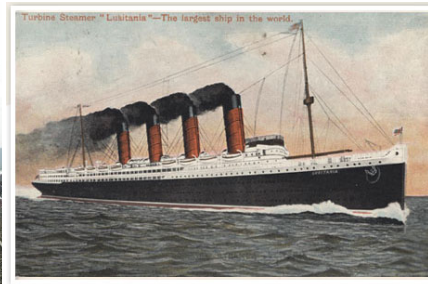
ISABEL COOK SCHOOL

OCTOBER 1972



It's All About Getting From A to B...

How Many Ways From New York to LA?

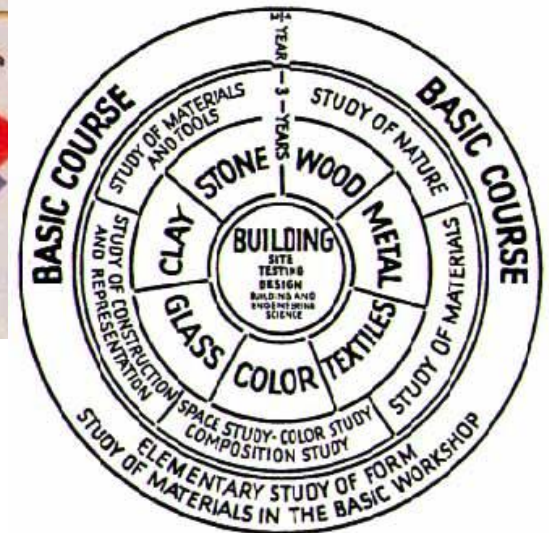
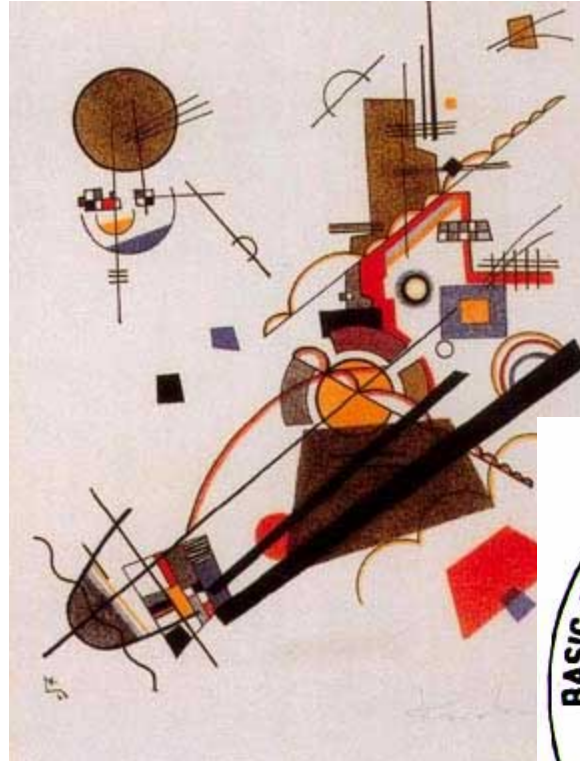


Overview

- Introductions/Housekeeping
- The Gestalt of Creative Movements
- Perspectives on Differentiated Instruction
- A Trip Down Memory Lane
- 'Fundamentals of Differentiated Instruction (Intake, Process, Product)
- Depth and Complexity Using Kaplan's Icons
- Content Imperatives
- Universal Themes
- Assessment and Grouping
- Framing
- Looking Forward
- Adjourn

Creative Movements Over Time

- Involving
- Spirited/Manic
- Chaotic
- Porous/Focused
- Tense
- Artistic
- Creative Play
- Collaborative
- Competitive
- Energetic
- Purpose-Driven
- Synergistic
- Differentiated
- Epiphany-Based



Good Teaching and Archery

Good teaching has nothing to do with magic formulas, recipes or one-size-fits-all solutions.

Good teaching builds upon a solid pedagogical, andragogical and heutagogical base and draws from a multitude of strategies that can be used at a given time in particular circumstances.

Always make sure your quiver is full!



Differentiation Defined?



Isn't it iron-ic?

Don'tcha think?



- It is like **irony**. Everyone believes they know what it is – but when called upon to define it – well...
- A rather large, **complex and comprehensive** topic that requires both **explicit and subtle** approaches

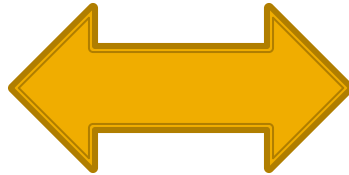
What Does Differentiation Look Like?

- When you see it in the classroom?
- How does it resonate with what we know about the cognitive and affective elements of gifted and talented education?
- How is different than our conventional methods of teaching in the United States?
- What are some of the problems that may arise?

Two Types of Differentiation

ORGANIC, ROOTED IN

- Prior experiences
- Expertise
- Interests
- Learning Styles
- Readiness
- Ways of thinking
- Cultural Factors
- Linguistic Abilities
- Socioeconomic Status



CREATED

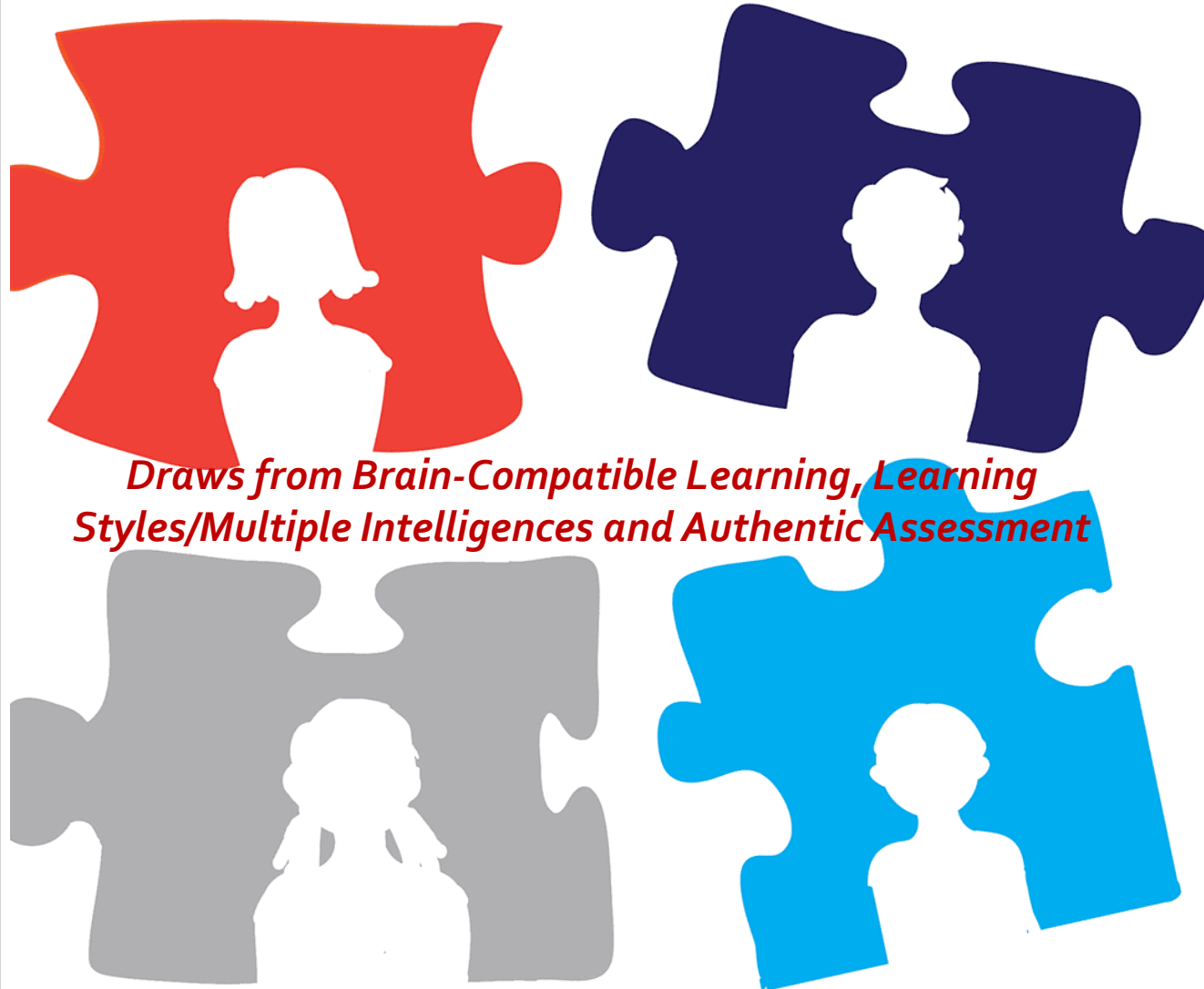
- Teacher manipulated
- Purposefully creating learning opportunities to meet learners where they are and to build from that point
- Teacher coordinates time, space, resources and activities to attend to the needs of learners (at left)

Differentiated Instruction

Differentiating instruction means that you **observe and understand the differences and similarities among students** and use this information to plan instruction.

- Ongoing, Formative Assessment
- Recognition of Diverse Learners
- Group Work
- Problem Solving
- Choice

-- *Laura Robb*, from Differentiating Reading Instruction



Differentiated Environments

- Flexibility in use of time
- Diverse learning management strategies
- Clarity of criteria for individuals and groups
- Diverse and authentic assessments
- Busy and messy
- Moves from manipulation to application to abstraction
- Differences a basis for planning (versus addressing problems)
- Assessment drives instruction (versus solely determining mastery)
- Materials and resources are diverse and tailored to learning styles, interests and readiness

Differentiated Instruction

- 'Difference' is at its heart. Learning as much as possible about your students through ongoing skills, interest and learning styles inventories and surveys as well as anecdotal conversations and informal interviews
- Analyze prior work to gain insight into strengths and areas to be developed (meet students where they are)
- Create a 'choice-infused' environment that affords opportunities for empowerment and independence

Differentiated Instruction

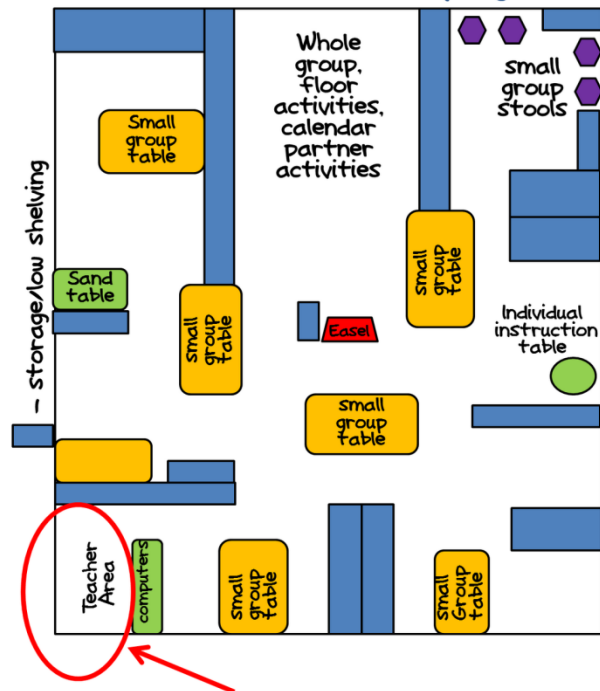
*Differentiation **isn't instantaneous** – it is developmental. You need not take on every element of differentiation at once. Get comfortable with a strategy or two and move forward – iteratively and consultatively with students and parents. Little successes tend to breed much larger ones!*

Differentiated Instruction: A Preview

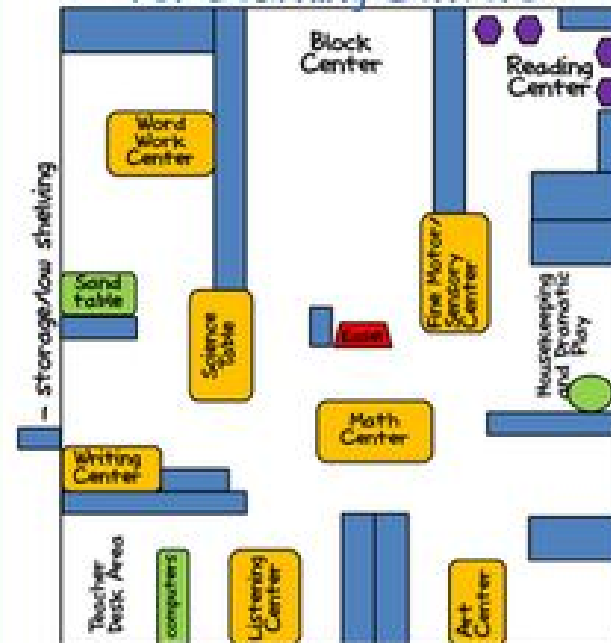
- Differentiated instruction (DI) lies at the heart of effective learning
- DI attends to the unique cognitive and affective needs of diverse learners
- DI is a straightforward and brain-friendly way to inspire ingenuity and commitment by appreciating diverse abilities, interests, aptitudes and learning styles
- Depth and complexity are the essence of DI and engage the brain through exploration, creative problem solving, metacognition and opportunities for 'flow'
- DI organically works well with CCSS: cross-disciplinary and collaborative
- Proof may be found in an understanding of how the brain learns and uses information in context.

Environment Matters

Classroom Floor Plan
For Flexible Grouping

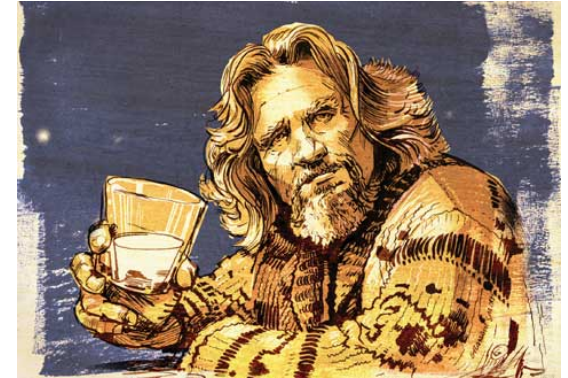


Same Classroom Floor Plan
For Learning Centers

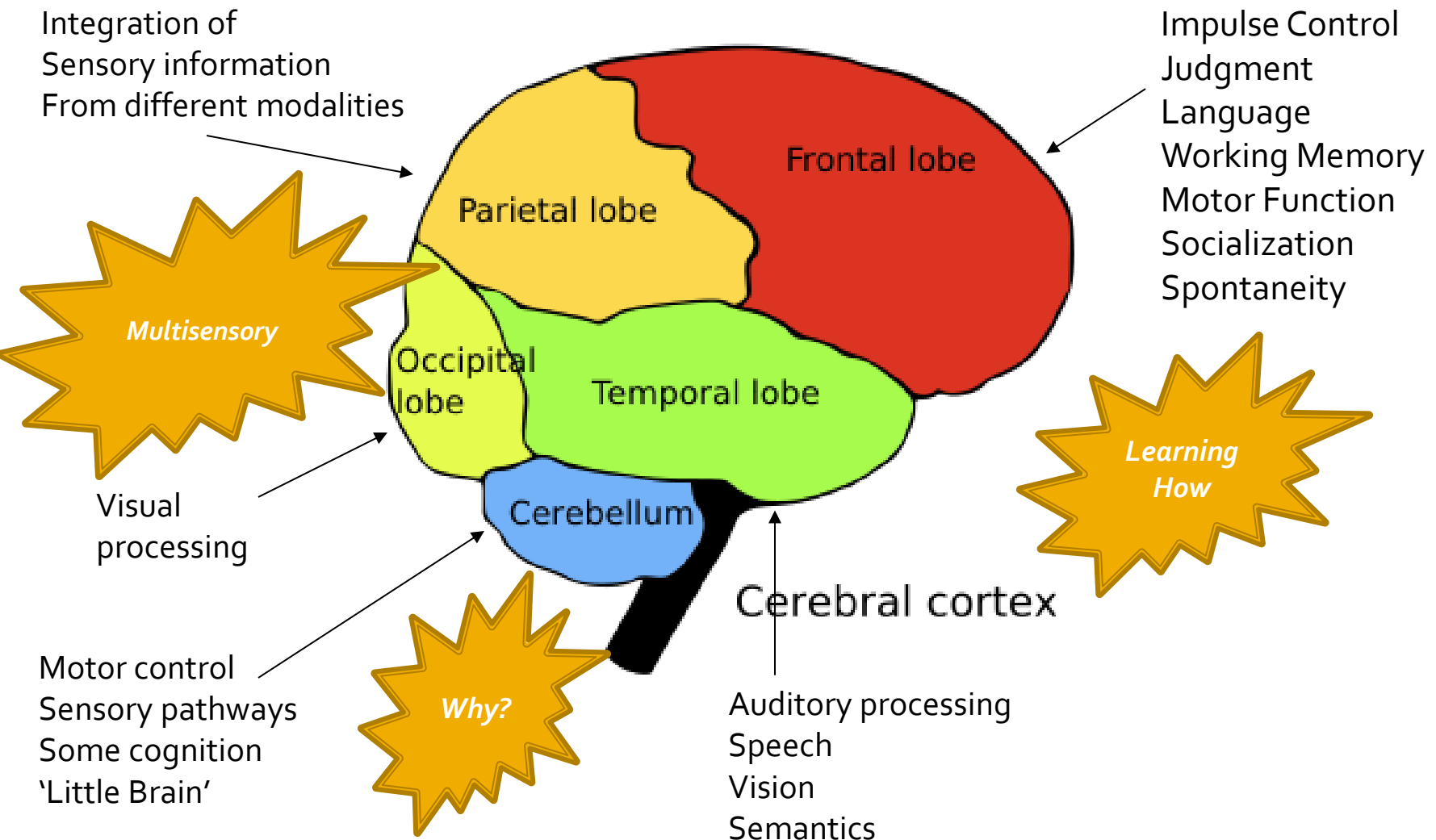


Your room should be flexible enough to easily accommodate centers and stations.

A Trip Down Memory Lane



Remember: Neuroscience



Remember: Neuroscience

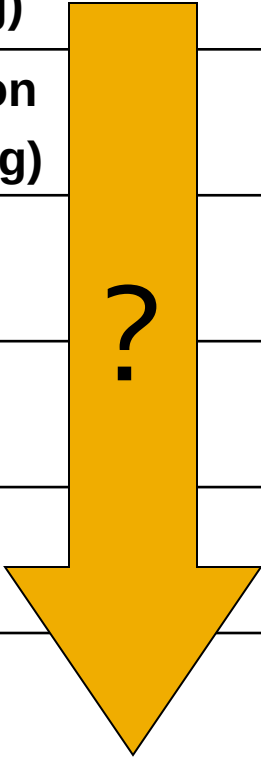
- The brain learns through **multiple senses and modalities**
- The brain thrives on **process** and **making sense** of new information
- The brain works in **context** when processing new information
- The brain uses **patterns** to make sense of information
- The brain uses **scaffolding** to process new information
- Neuroplasticity: the lifelong ability of the brain to reorganize neural pathways based on new experiences
- Physiologically, like a coin making an impression in clay—the clay must change to hold the impression of the coin
- Consider the old saw 'Give a man a fish and he eats for a day, *teach* a man to fish and he eats for a week'
- The brain works in a very similar way: it thrives on making sense of *process*!
- Process reinvigorates the brain through re-establishing neural networks

Remember: Neuroscience

1. The brain is a complex adaptive system.
2. The brain is a social brain.
3. The search for meaning is innate.
4. The search for **meaning occurs through patterning**.
5. Emotions are critical to patterning.
6. Every brain simultaneously perceives and creates parts and wholes.
7. Learning involves both focused attention and peripheral attention.
8. Learning always involves conscious and unconscious processes.
9. We have at least two ways of organizing memory.
10. Learning is developmental.
11. Complex learning is enhanced by challenge and inhibited by threat.
12. Every brain is uniquely organized.

Source: *Caine and Caine (1997)*

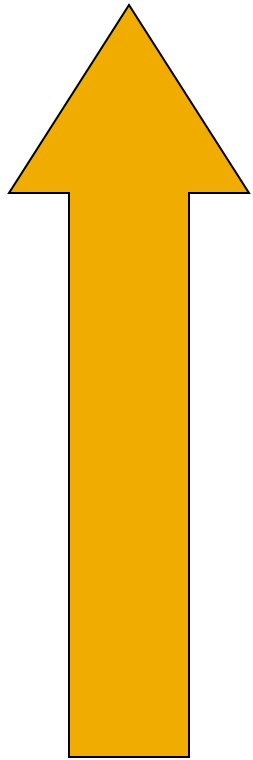
Remember: Cognitive Domain

Knowledge (Remembering)		Recalling facts, terms, answers
Comprehension (Understanding)		Demonstrate understanding by organizing, comparing, describing, etc.
Application (Applying)		Using new knowledge in a different way, applying to new situations
Analysis (Analyzing)		Make inferences to support generalizations
Synthesis (Evaluating)		Compile information together (Make judgments about the value of ideas)
Evaluation (Creating)		Present information on validity of ideas (Create new product or point of view)

Remember: Multiple Intelligences

- **Linguistic intelligence** ("word smart")
- **Logical-mathematical intelligence** ("number/reasoning smart")
- **Spatial intelligence** ("picture smart")
- **Bodily-Kinesthetic intelligence** ("body smart")
- **Musical intelligence** ("music smart")
- **Interpersonal intelligence** ("people smart")
- **Intrapersonal intelligence** ("self smart")
- **Naturalist intelligence** ("nature smart")

The Affective Domain



Internalizing Values	Creation of a system of values that controls behavior (changing behavior)
Organization	Prioritizing values in order
Valuing	The value a learner attaches to something
Responding to Phenomena	Taking an active role in learning; participating
Receiving phenomena	Awareness, willingness to listen

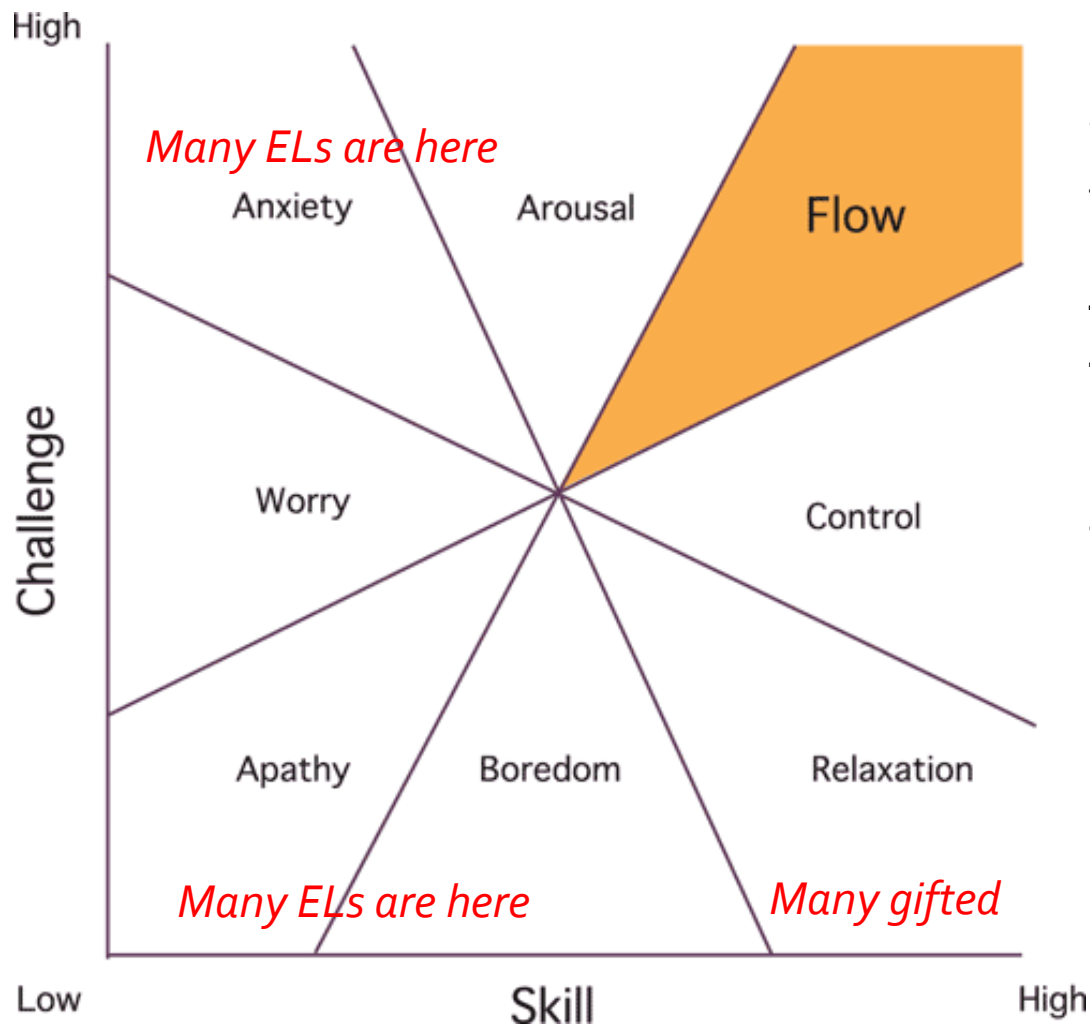
Remember : 'Flow'

- Mihaly Csikszentmihalyi (1975, 1990)/positive psychology
- A **Zen-like**, intensive state in which an individual becomes completely emerged in an experience
- "In the groove," **OPTIMAL EXPERIENCE**, "In the zone"
- Time stops (almost a meditative state) or flies
- "Seeing the **seams of the baseball**" or "seeing the Matrix"
- Losing oneself so that one is so focused, s/he is unaware of distractions, even bodily needs
- A **universal** and **cross-cultural** experience
- Connectivity between **emotion, motivation and internalization**

Remember: *Flow*

- **Balance between individual's ability and level of difficulty in the challenge** (cannot be too easy or difficult or flow cannot occur).
- Goals should be **clear**. Expectations are foreseen and goals are **attainable**.
- High degree of concentration in a **limited field** of attention—person should be able to focus and become **deeply engaged in the activity**.
- A loss of **self-consciousness** is experienced (unaware of self and what the self is doing).
- Sense of **time transcendence** (subjective experience of time is altered—passes quickly/slowly/slow motion)

Remember: *Flow*



When in the flow state, the **brain is actively seeking out information from multiple sources to engage in problem solving activities.**

Too many of our diverse learners are left out of the equation: for example, gifted and talented, English Learners and special needs students.

The Importance of Play in Serving Learners and Making Connections

Creativity
Abstract thinking
Problem solving/Process
Imagination
Mastering new concepts
Self-confidence
Self-esteem
Anxiety reduction
Cooperation
Sharing
Empathy
Conflict resolution
Leadership
Communication
Vocabulary
Storytelling
Persistence
Concentration
Communication skills



Remember: High Achievers

- Remembers answers and needs about **6-8 repetitions** to master
- Alert and observant; attentive and interested
- Pleased with own learning and gets high marks
- Works hard to achieve, learns with ease
- Is a **technician** with expertise in his/her field, responds with interest and opinions
- Performs at the top of the group and absorbs information
- Is accurate and complete, memorizes well
- Understands complex humor
- Enjoys company of age peers
- Completes assignments on time, answers questions in detail

Remember: Gifted Characteristics

- Poses unforeseen questions and is curious
- Knows without working hard and is beyond the group
- Needs **1-3 repetitions** for mastery
- Prefers company of **intellectual peers**
- Ponders with depth and multiple perspectives
- Is intellectual and anticipates/relates observations
- Infers and connects concepts
- Creates complex/abstract humor and is intense
- Initiates projects and extensions of assignments
- Enjoys self-directed learning and is original/continually developing
- Is an expert who abstracts beyond the field; guesses and infers well
- Is self critical and may not be motivated by grades

Remember: Creatives

- Sees exceptions and wonders
- Plays with ideas and concepts
- Relishes wild, off-the-wall humor
- Comprehends in-depth and complex ideas
- Enjoys improvisation and creating
- Is his/her own group
- Questions the need for mastery
- Brainstorms
- Intuitive
- Inventor
- Enjoys working alone, but the company of creative peers
- Shares bizarre and often conflicting opinions

STOP and Think

- How can we create a series of educational experiences for our gifted and talented that doesn't leave anyone behind?
- Common Core is a good start, but all boats should be elevated on rising seas
- Now, what do we do about it?



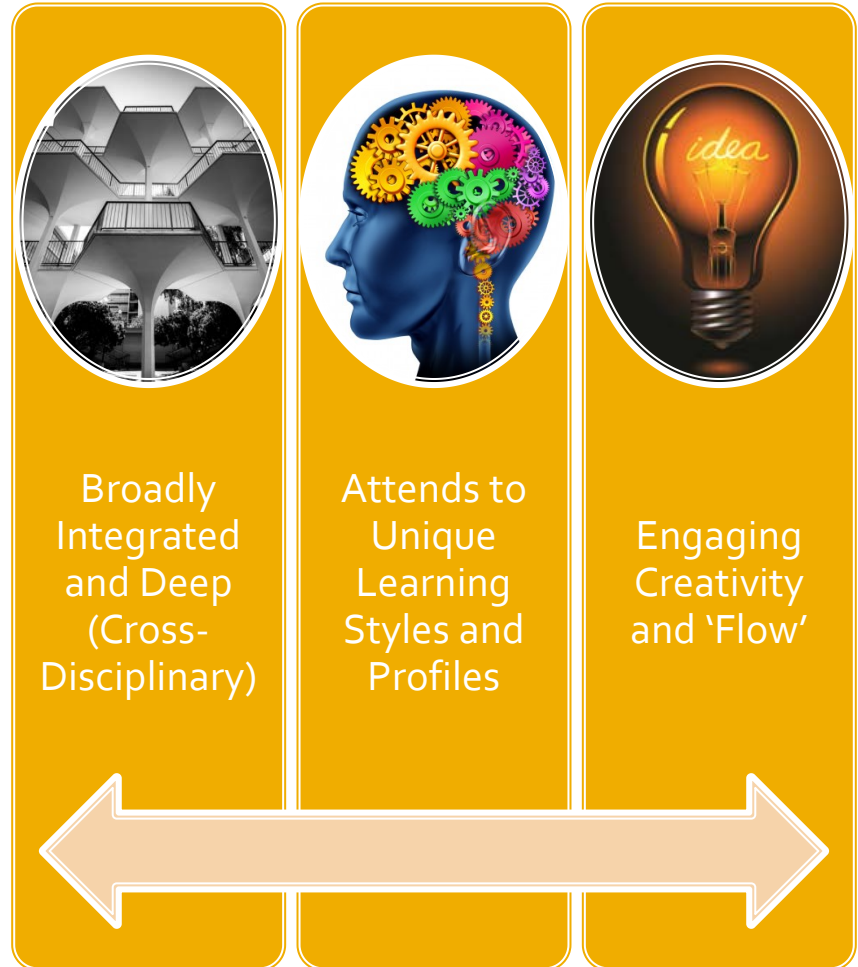
Differentiated Thoughts

Differentiation IS	Differentiation IS NOT
1. Proactive 2. Qualitative 3. Organic 4. A blend of different grouping and teaching styles 5. A focus on intake, process and product 6. Student focused	1. Chaotic 2. Another way to provide homogenous grouping 3. 'Individualized Instruction' from days gone by 4. Making small and peripheral adjustments

Based on Tomlinson, 2001 and de Oca, 2010

Differentiating Content and Instruction

- *What it is (core beliefs):*
 - Learning styles and profiles for every student are **different**
 - **Active** versus passive learning (problem solving, etc)
 - Making **meaning** versus 'covering'
- *Where you see it:*
 - Content (multiple intake avenues)
 - Process (multiple sensemaking opportunities)
 - Product (multiple ways to showcase knowledge)



Differentiating the Curriculum



- **Depth** (broadening understanding by venturing more deeply into a given area of study)
- **Complexity** (broadening understanding by building bridges across areas of study, associations, etc)
- **Novelty** (constructing meaning/knowledge in a highly personalized manner)
- **Pacing** (altering the speed of learning and providing more sophisticated resources to accelerate learning)
- **Combines** whole-class, small group and individual instruction

Building Blocks of Differentiated Instruction

DEPTH

- Moving from concrete to abstract
- Moving from known to unknown
- Examine topics by determining facts, concepts, generalizations and theories therein applied
- Uncovering details and new knowledge in a given area of study
- Adopt perspectives and seek out connections
- Becoming an expert in a subject

COMPLEXITY

- Making relationships
- Connecting other concepts and layering
- Why/how approach that connects to other disciplines
- Relate concepts in a more sophisticated way
- See associations between diverse subjects
- Divine multiple solutions from multiple points of view

The Differentiation Equation

*DI= Thinking Skills + Content +
Research + Product, contextualized
in a dynamic and respectful
learning environment.*

Source: J. Taylor, 2015



Differentiation of Instruction...

...is a teacher's response to learners' needs guided by principles of differentiation

Respectful tasks

Flexible grouping

Ongoing assessment/adjustment

Teachers can differentiate

CONTENT

PROCESS

PRODUCT

According to a learner's

READINESS

INTERESTS

LEARNING STYLES

Using the following strategies

Multiple Intelligences/Jigsaw/Taped Material/Anchor Activities /Iconic Teaching
Tiered Lessons/Tiered Centers/Varied Texts/Varied Organizers/Learning Contracts/Compacting
Small-Group Instruction/Interest Centers/Interest Groups – among many, many, many others

The Differentiated Classroom...

- Centers around **teacher's clarity** of (high) expectations
- **Assessment drives instruction** (always)
- Content, process and product **are adjusted** to readiness, interest and learning styles
- Characterized by **respectful work** and collaboration between students and teachers
- **Flexible and scaffolded** upon student differences
- Goals are **maximum growth and individual success**

What Should the Teacher be Doing?

- Organizing opportunities and learning experiences versus fillers of heads (**COACHING**)
- **Assessing readiness** through diverse means
- Creating opportunities to **gather and make sense of information**
- Reading clues/cues related to learning styles and interests
- Create **diverse opportunities to express understanding**



The 'FLOW' of the Differentiated Classroom: an Example

1. Teacher and class explore ideas/concepts together
2. Students engage in further study using varied materials based on readiness and learning style
3. Students and teacher come together to share information and pose questions
4. Students work at varied assigned tasks at varied levels of pacing and complexity (sensemaking)
5. Whole class review, extension through sharing
6. Students select small groups to work on teacher-generated problems related to study
7. Whole class receives process training for presentations
8. Students elect interest areas to extend understanding
9. And it all begins again...

Flexible Grouping

- Must be planned and designed to achieve a particular curricular purpose (**purpose driven**)
- Groups should be formed based on available data that you've collected along the three criteria (**readiness, interest and learning style**)
- Should change frequently, based on **content and learning objective**
- Groups are listed in folders, mailboxes, whiteboards, etc
- Pre assigned 'standing' groups (**Text Teams; Think Tanks; Teacher Talkers; Peer Partners**)
- Watch for 'tracking' situations (for example, all gifted or struggling pupils working together all of the time)

Choice Abounds (Next Session)

Begin Slowly – Just Begin!

Low-Prep Differentiation

Choices of books
Homework options
Use of reading buddies
Varied journal Prompts
Orbitals
Varied pacing with anchor options
Student-teaching goal setting
Work alone / together
Whole-to-part and part-to-whole explorations
Flexible seating
Varied computer programs
Design-A-Day
Varied Supplementary materials
Options for varied modes of expression
Varying scaffolding on same organizer
Let's Make a Deal projects
Computer mentors
Think-Pair-Share by readiness, interest, learning profile
Use of collaboration, independence, and cooperation
Open-ended activities
Mini-workshops to reteach or extend skills
Jigsaw
Negotiated Criteria
Explorations by interests
Games to practice mastery of information
Multiple levels of questions



High-Prep Differentiation

Tiered activities and labs
Tiered products
Independent studies
Multiple texts
Alternative assessments
Learning contracts
4-MAT
Multiple-intelligence options
Compacting
Spelling by readiness
Entry Points
Varying organizers
Lectures coupled with graphic organizers
Community mentorships
Interest groups
Tiered centers
Interest centers
Personal agendas
Literature Circles
Stations
Complex Instruction
Group Investigation
Tape-recorded materials
Teams, Games, and Tournaments
Choice Boards
Think-Tac-Toe
Simulations
Problem-Based Learning
Graduated Rubrics
Flexible reading formats
Student-centered writing formats



Assessment and Grouping Strategies

- Differentiation happens consistently and is shepherded by teachers (not self-taught by pupils) – emphasizes creativity and critical thinking
- Differentiation is engaging and process-focused (fires on all emotional cylinders; has a clear 'sticky' message; and builds on prior knowledge)
- No matter what you title your groups, students typically know how you are grouping them. Balance between teacher-assigned and student-selected work
- Clarity around central principles and concepts is essential—assessment is a key jumping-off point for this type of work (roadmap)
- What are possible outcomes of being more flexible in grouping students?
- Consider these alternatives:
 - By **Ability/Readiness**, based on a pre-assessment
 - By **Interest**, based on a survey of student interests
 - By **Learning Style**, based on the ways that pupils engage content

Tiering Curriculum and Instruction



DAWSON'S LEAK.

*Well, I guess some
might call this tiering
or tear-ing.*

*But don't worry,
Dawson, everything
will turn out OK.*

Differentiation: Tiering Instruction

- Assigning different tasks within the same unit of instruction based on a robust understanding of readiness (most typical), interest (less typical) and/or learning styles (less typical)
- What can be tiered?
 - *Content (what should be learned)*
 - *Process (how students make sense of content)*
 - *Product (how can students demonstrate what they've learned?)*

Differentiation: Tiering Up

- Blends **assessment and instruction**
- Aligns complexity in a way that **attends to readiness and provides resources and support at all levels**
- Focuses on essential concepts – but enables all to approach curriculum and instruction in an interested and engaged manner
- Working at appropriate balance between skill and challenge (promotes ‘flow’)

Tiered Activities / Assignments: A Framework for Design

When designing a tiered activity / assignment use these ideas as a guide:

Tiers	Questioning Cues	Possible Products
Tier 1 Activities / Assignments	Describe, name, define, label, select, identify, write, describe, memorize, recite, list, draw, match, illustrate, explain, compare, paraphrase, defend, predict, restate, summarize	Dictionary, skit, diagram, collage, television show, newspaper, speech, graph, story, radio program, outline
Tier 2 Activities / Assignments	Classify, collect, produce, solve, model, apply, examine, survey, distinguish between, categorize, select, interpret, infer, separate, investigate	Survey, questionnaire, report, model, an idea broken into parts, mobile, painting, puzzle, diagram, map, illustration, forecast, project, sculpture, solution
Tier 3 Activities / Assignments	Invent, judge, evaluate, give opinion, hypothesize, imagine, prioritize, critique, what if, recommend, plan, weigh, assess, compose, develop, role-play, create, summarize	Set of rules, an alternate course of action, invention, detailed report, poem, experiment, cartoon, game, trial, self-evaluation, debate or group discussion, a hypothesis formulated and tested

Source: Kingore, 2015.

Differentiation: Tiering Up

- What should students know and be able to do?
What skills are essential?
Where can I scaffold?
- Create a 'baseline' activity or assignment for those who are 'on level'
- If tiering by readiness, use pre-assessment data to inform the development of the 'on-level' activity
- Baseline activity should be interesting and challenging, engaging multiple learning styles and skill sets to demonstrate understanding
- Then S-T-R-E-T-C-H to accommodate gifted or higher level learners and struggling learners (three-tiered activity)

Differentiation: Tiering Up

- Ensure that tiering is **flexible**. This is not ability grouping in its most traditional sense (low-middle-high)
- The **number of tiers is dependent upon the number of students and the tasks at hand** as identified by student needs
- Start with one and **add gradually**
- Complexity is **relative**
- Include opportunities for **high-level thinking in each tier** (up and down Bloom's)
- Provide **support at every level**
- Remember that the gifted are a **heterogeneous group**
- Make sure your structures (working in groups and anchors) are clear – **pre-work**

Source: Adams, Kingore, 2015.

Factors Influencing the Complexity of Tiering

- Degree of **structure**
- Required **background knowledge and skills**
- **Concrete or more abstract**
- **Quantity** of resources required
- **Complexity** of resources required
- Complexity of **process**
 - Pacing
 - Number of steps
 - Skills required
 - Straightforward to most complex
- Complexity of **product**
 - Simple 'correct' answers
 - Varied and complex responses
 - Integration of advanced skills and concepts

Group Activity: Tier It Up

- Identify **grade level and disciplinary area**
- What standards (including for gifted) are being targeted?
Always start with the standard as a destination!
- Define the '**big idea**' (generalization—what I want students to know regardless of tier placement)
- Be sure students have the **appropriate background** to be successful in the lesson
- Determine the area to be tiered (**content, process, product**)
- Determine the type of tiering you will undertake (**readiness, learning style, interest**)
- Determine the number of tiers and the **activities and supports** associated with each
- Develop the **lesson and assessments**, based on the tiers and planned activities
- What are you doing for each group?

Curriculum Compacting

- **Curriculum Compacting** is an instructional technique that is specifically designed to make appropriate curricular adjustments for students in any curricular area and at any grade level:
 - Defining the **goals and outcomes** of a particular unit or segment of instruction
 - Determining and documenting **which students have already mastered most or all of a specified set of learning outcomes**
 - Providing **replacement strategies for material already mastered through the use of instructional options** that enable a more challenging and productive use of the student's time.

The 'FLOW' of the Differentiated Classroom: an Example

1. Teacher and class explore ideas/concepts together
2. Students engage in further study using varied materials based on readiness and learning style
3. Students and teacher come together to share information and pose questions
4. Students work at varied assigned tasks at varied levels of pacing and complexity (sensemaking)
5. Whole class review, extension through sharing
6. Students select small groups to work on teacher-generated problems related to study
7. Whole class receives process training for presentations
8. Students elect interest areas to extend understanding
9. Etc...

What Should the Teacher be Doing?

- Organizing opportunities and learning experiences versus fillers of heads (**COACHING**)
- Assessing readiness through diverse means
- Creating opportunities to gather and make sense of information
- Reading clues/cues related to learning styles and interests
- Create diverse opportunities to express understanding



Ten Strategies to Manage DI

- Have a strong rationale to differentiate along **readiness, interest and learning profile**
- Begin at a pace comfortable for you (learning curve)
- **Time activities** for student success
- **Anchor activities can be used by completers** to free time to work with students
- Create and deliver instructions carefully (clarity is king!)
- Have a '**home base**' for students (flexible grouping) – where pupils start and end
- Make sure you know how students can get help as you work with others (managing traffic)
- Bestow responsibility for learning upon the student
- Talk about classroom procedures and processes—ownership of process
- Use flexible groupings (readiness, interest, learning style)

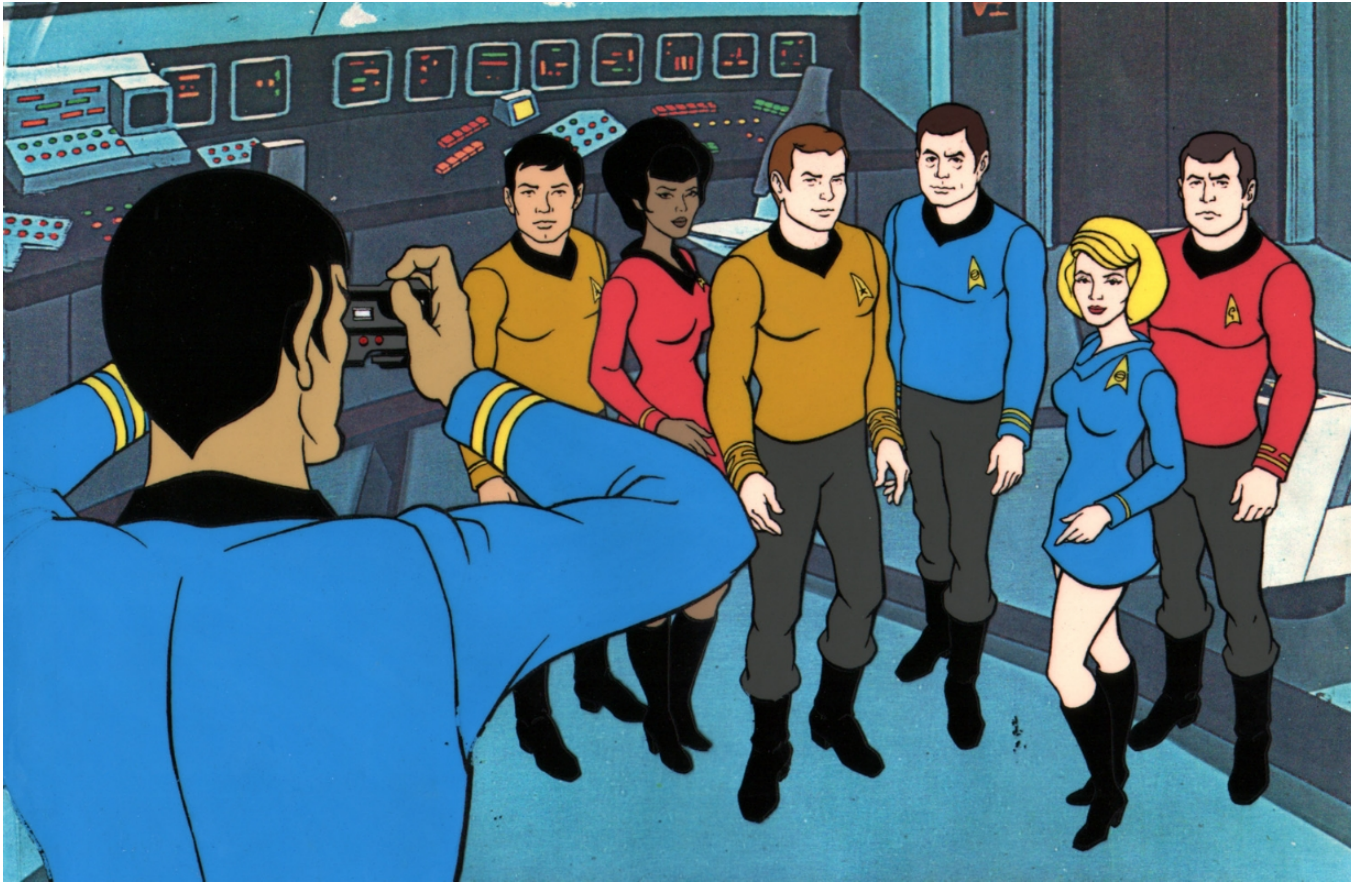
Revisiting Flexible Grouping

- Must be planned and designed to achieve a particular curricular purpose
- Groups should be formed based on available data that you've collected along the three criteria (readiness, interest and learning style)
- Should change frequently, based on content and learning objective
- Groups are listed in folders, mailboxes, whiteboards, etc
- Pre assigned 'standing' groups (Text Teams; Think Tanks; Teacher Talkers; Peer Partners)
- Watch for 'tracking' situations (for example, all gifted or struggling pupils working together all of the time)

Example of High-Prep Activities

- These are activities that take **planning** (not spur of the moment) and incorporate a steeper learning curve
- These are activities that require quite a bit of **flexibility**—but the results are so very well worth it!
- We start with **Iconic Teaching, Content Imperatives** and **Universal Themes**

Iconic Teaching, Content Imperative and Universal Themes



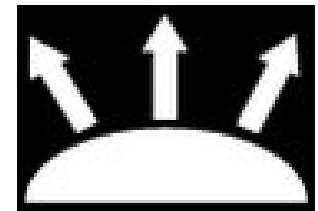
The 'duck face' seems to be a universal theme spanning centuries.

Boldly going where no selfie has gone before.

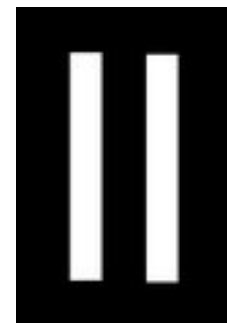
A Differentiated Art Assignment



Ancient Rome



Banksy



Actualizing DI Through Iconic Teaching

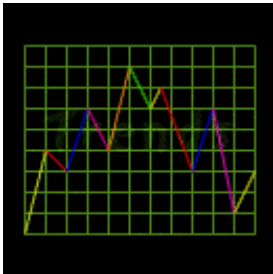
- **Iconic teaching** is a way in which the core principles of interdisciplinary differentiated instruction (depth and complexity) are integrated into instruction and student work
- Icons (**symbols developed by Sandra Kaplan at USC**) represent different aspects of **depth and complexity** that are used in the course of instruction
- Highlights **scholarly behavior** – ‘thinking like a (multi-) disciplinarian’ – what experts know



Kaplan's Icons: Depth



Rules: Through the use of this icon, students are instructed on how to define the organizational elements affecting the specific curriculum which is being studied. This process requires the identification and description of factors, either human-made or natural, which affect the information at hand.

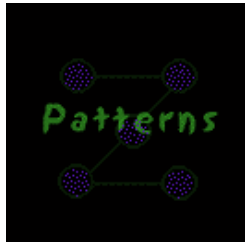


Trends: How do things change over time? What factors (socioeconomic, political, geographic) serve as catalysts for these changes?



Ethical Considerations: Students are instructed to identify and analyze the possible rights and wrongs of a given idea or event. This allows them to determine the elements that reflect bias, prejudice and discrimination. Through this focus on ethics, students develop the ability to state pro and con arguments in terms of ethics.

Kaplan's Icons: Depth



Patterns: This icon is used to instruct the students to identify the recurring elements or repeated factors of an event or idea. It also focuses on the order of events which occur. Finally, students are asked to identify the pattern and to predict what comes next.



Recognize the Details: This icon involves elaboration of an idea or event. The student's ability to describe something is integral in the learning process thus the teacher encourages the students to elaborate and describe.



Language of the Discipline: Instructors encourage the use of appropriate language when addressing specifics in the curriculum. Part of being a scholar requires the use of appropriate terminology.

Kaplan's Icons: Depth



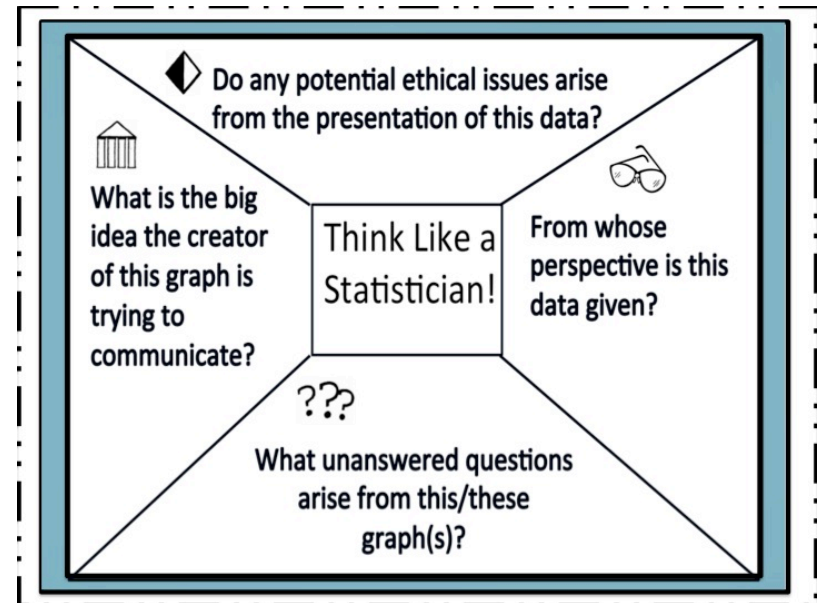
Unanswered Questions: What ideas are unclear? What information is unclear? What don't we know? What areas have not been explored or proved yet? Do any of our conclusions need further evidence or support? These are questions which arise when using this icon in discussion of an area of curriculum.



Big Idea: The big idea is in other words a generalization, principle or theory about the curriculum being studied. The students are directed to: (1) make a conclusion from evidence that explains a collection of facts or ideas; (2) explain a group of facts or ideas with a summary statement; (3) identify a rule or general statement based on repeated/recurring observations of data, information or collection of ideas

Depth in Action: Math

- What are the **rules** involved in solving this problem?
- Does changing the **rule** yield a different result?
- What elements of the equation are **missing**?
What would we need to know to solve for x ?



*Framing a statistical presentation,
a strategy to be discussed later.*

Kaplan's Icons: Complexity



Relate Over Time: How are elements related in terms of the past, present, and future? How and why do things change? What doesn't change?



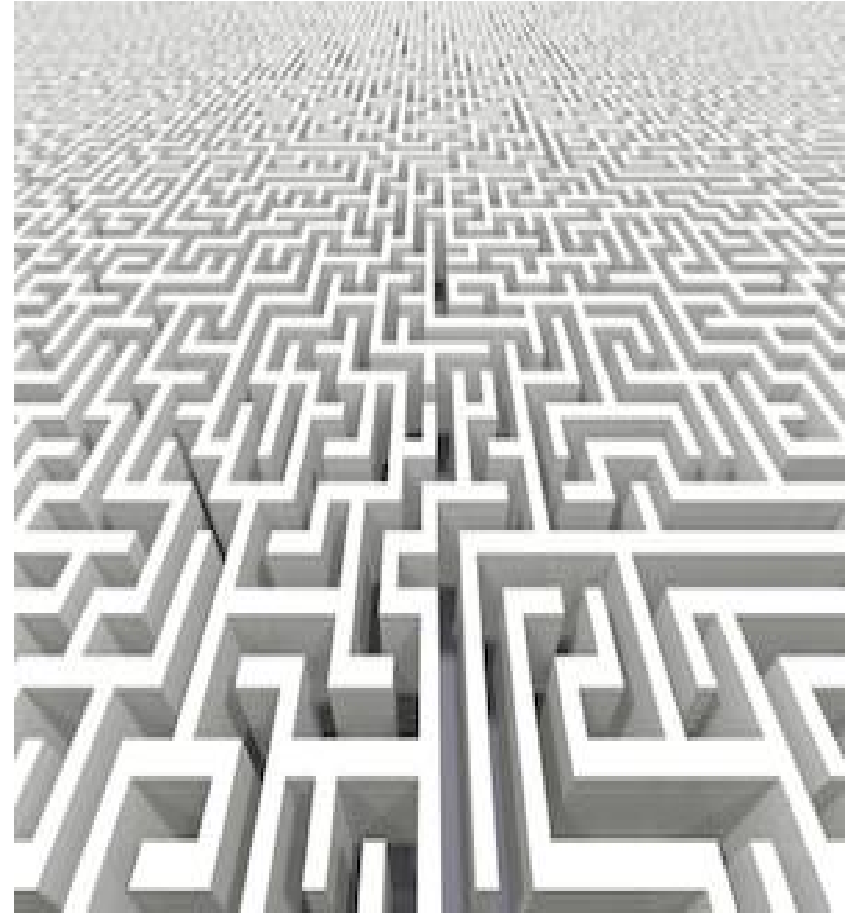
Multiple Perspectives: How would others see the situation differently?



Across Disciplines: Relate the area of study to other subjects within, between, and across disciplines.

Complexity in Action

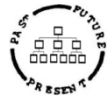
- How do stakeholders involved in the economic collapse **view the situation**? How do these viewpoints shape their actions?
- How do cycles of educational reform **remain similar and different across the decades**? What factors contribute to supporting gifted and talented education?
- How can the Arab Spring be **understood through the arts**?



Combining Icons



Examine the details from
multiple points of view



Explore how rules have
changed over time



Examine word choice from
multiple points of view



Examine trends from
different perspectives

Example 1: Elementary



OSCAR'S ENORMOUS PURR

by Jeanne Richardson Rondoe



Words 	 How people felt about Oscar when he was a kitten	 How Oscar feels
Actions 		

 **Envision Gifted!**
Differentiation for Gifted & Talented Learners

Oscar's Enormous Purr

Words  Such a loud purr for such a little kitten!	 How people felt about Oscar when he was a kitten People liked Oscar	How Oscar feels  glad happy
Actions  People smiled		

Words  "Put Oscar outside!" "Get that cat out of here!"	 How people felt about Oscar in the middle of the story The people were angry with Oscar and his loud purr. It made things fall.	How Oscar feels  He hated it outside. Lonely
Actions  yelled Put oscar outside		

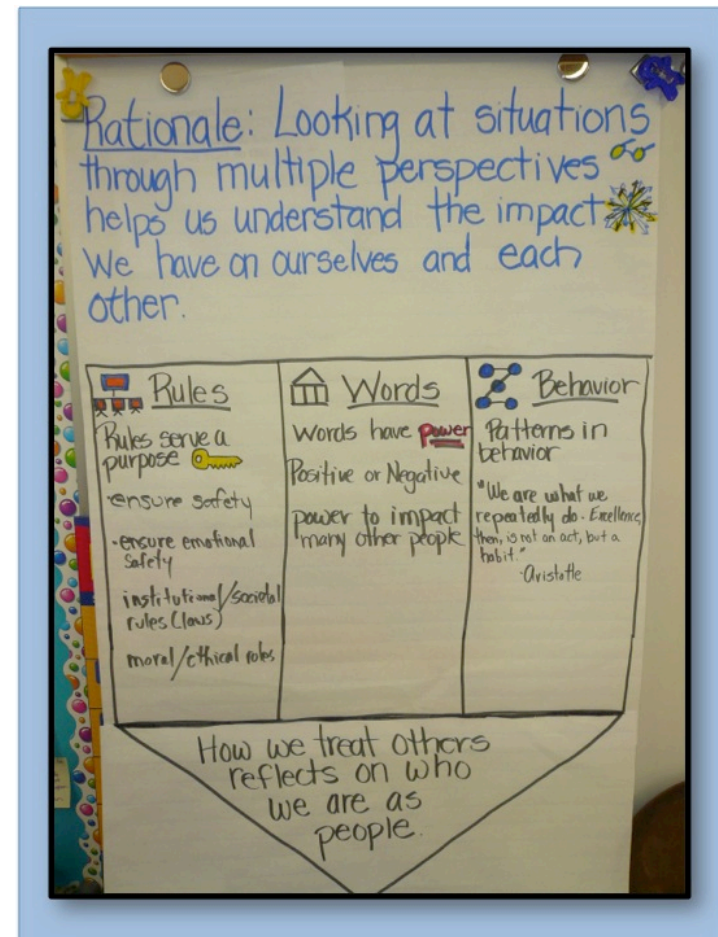
Words 	 How people felt about Oscar at the end of the story They thought Oscar was a hero. Happy	How Oscar feels  Oscar feels so good.
Actions  They hugged and hugged him. cheered		

Source: Envision Gifted! 2015

Example 2: Elementary



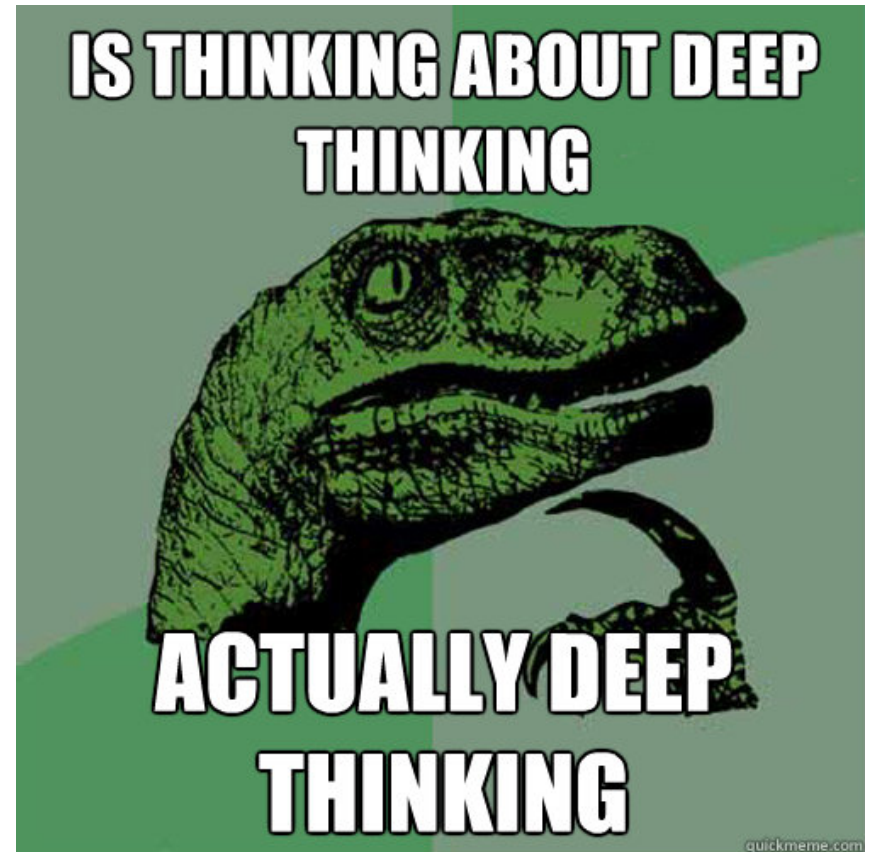
Teach students to “read” the cover of a book using Depth and Complexity.



Source: Envision Gifted! 2015

Content Imperatives

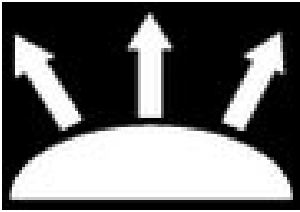
- Also developed by Sandra Kaplan as a means to increase rigor and to complement depth and complexity icons
- Enhances differentiation and builds on depth and complexity



Content Imperatives

- Can be used as a **preface to a lesson** or bridge to prior knowledge (building motivation)
- Used individually or in conjunction with icons of depth and complexity **during a lesson** to motivate discussion and further study
- Can be used as a **follow-up to a lesson or in guidelines for differentiated assignments**

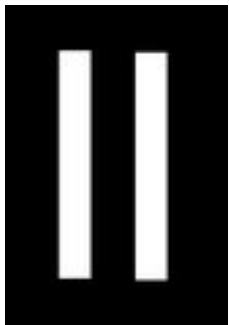
Content Imperatives



Origin: how things got started or began.

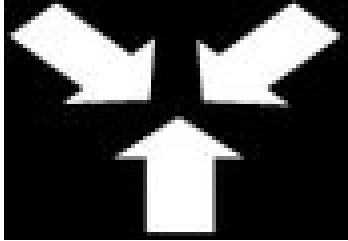


Paradox: how things can simultaneously pose conflicting or opposing ideas.

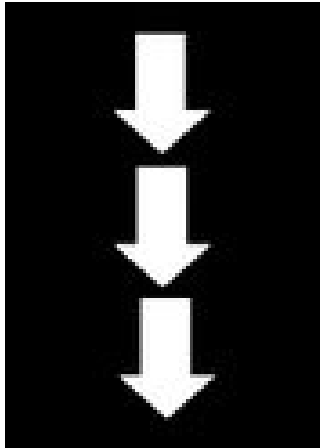


Parallels: how areas of study share common characteristics.

Content Imperatives



Convergence: how ideas come together to form new or different ideas



Contribution: the benefit or effect of some action or attribute.

Using Content Imperatives

YOU CAN GO WITH THIS

- What were the political and economic factors that **converged** to serve as catalysts for the Civil War?
- What are the **origins** of our laws and how did they **develop over time**?
- What **parallels** can you find between the songs 'Blackbird' and 'I'm Black and I'm proud?'
How do they reflect conditions today?

OR YOU CAN GO WITH THAT

- What factors led up to the Civil War?
- Why are our laws the way they are today?
- How did musical artists reflect what was going on in the 1960s?

Using Content Imperatives

YOU CAN GO WITH THIS

- How did the setting **contribute** to the overall feel of the story? How did the setting impact the characters?
- What **conflicting opinions** created the problem in the story? How do you determine fact from opinion?

OR YOU CAN GO WITH THAT

- Where was the story set?
- What was the main problem in the story?

Combining Icons and Imperatives

- Just about anything can be mixed and matched, as in combining icons
- One way to do so is through framing (described below)

Combining Icons and Imperatives

CONFLICT

THE STRUGGLE OR PROBLEM A CHARACTER FACES IN A STORY.

Conflict can be created when...

- Patterns change
- by missing or not noticing the details.
- Someone struggles with an ethical issue.
- Not knowing or following the rules.
- You don't consider other people's feelings/perspective



MARIAH KEEPS COOL
by Mildred Pitts Walter

How do the characters in this story parallel other characters in different stories?

Some characters in this story are very similar to different characters in other stories. You also know Lynn is very similar to the main characters in other stories. She and Anna are Mariah's relatives, alike in every way. For one, both are jealous of their sibling's relationship. This parallels with Denise often leads to her being similar to Lynn in because of Mariah. Both might Mariah Lynn? feel like their in a world of their own. This also parallels how encounter in Lynn is deeply affected the princess in The Malachite Rake.

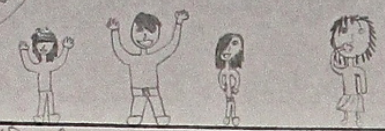
planning the party for Lynn and how does that lead to change over time in their relationship?

- Mariah encounters many problems and problems in planning the party. The main problem is Lynn. Lynn interferes with the surprise birthday party.

Small details that change over time making it harder for Lynn to lead to the origin of a new personality. This comes, statement is Mariah. This leads to Mariah by the way Lynn starts to change her attitude. Even though most people tend to ignore small details in this story, those small details change about Lynn. Lynn. Small things that the Franklin Five did to "change" Lynn are planning a party for her, acting more nicely, and really pondering about her and how she feels.

HAPPY BIRTHDAY LYNN

SHARING



Source: Envision Gifted! 2015

Universal Themes

- An organizing concept that supports work in concert with depth and complexity and transcends time and place
- Students use universal themes to connect seemingly unrelated ideas

Universal Themes

- Abuse of power
- Action versus apathy
- Beating the odds
- Beauty
- Coming of age
- Corruption
- Courage
- Effects of the past
- Faith
- Fall from grace
- Family
- Fate
- Fear of failure
- Freedom
- Friendship
- Greed
- Hate
- Heritage
- Heroes
- Honesty

Universal Themes

- Innocence
- Justice
- Love
- Loyalty
- Manipulation
- Nature
- Need for Change
- Obligation
- Parent-Child Relationships
- Peace
- Peer Pressure
- Perseverance
- Power of Mind v. Authority
- Prejudice
- Price of Progress
- Pride
- Quest for Knowledge
- Religion

Universal Themes

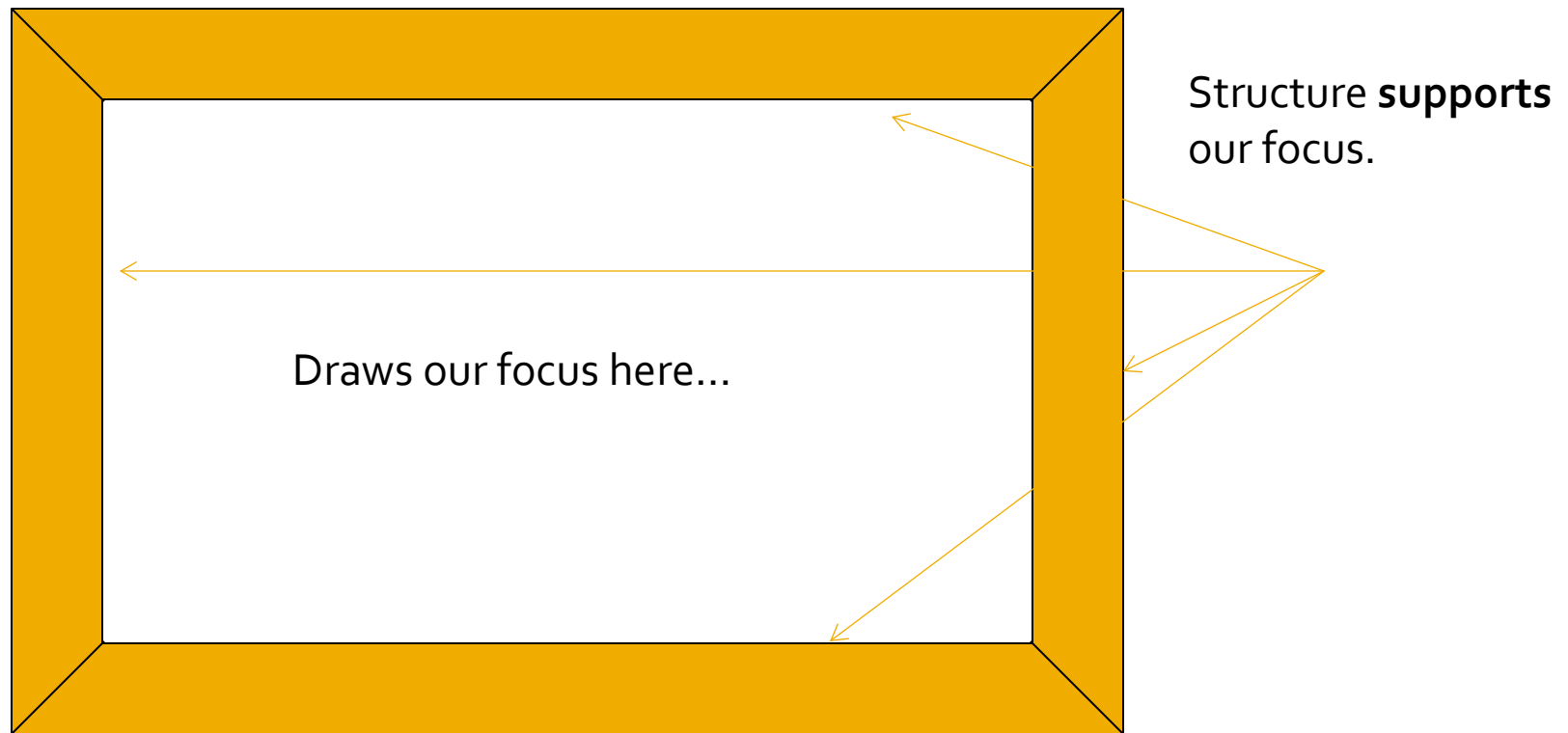
- Revenge
- Secrecy
- Security/Safety
- Seizing the Moment
- Survival
- The Overlooked
- The Road Not Taken
- War
- Winners and Losers



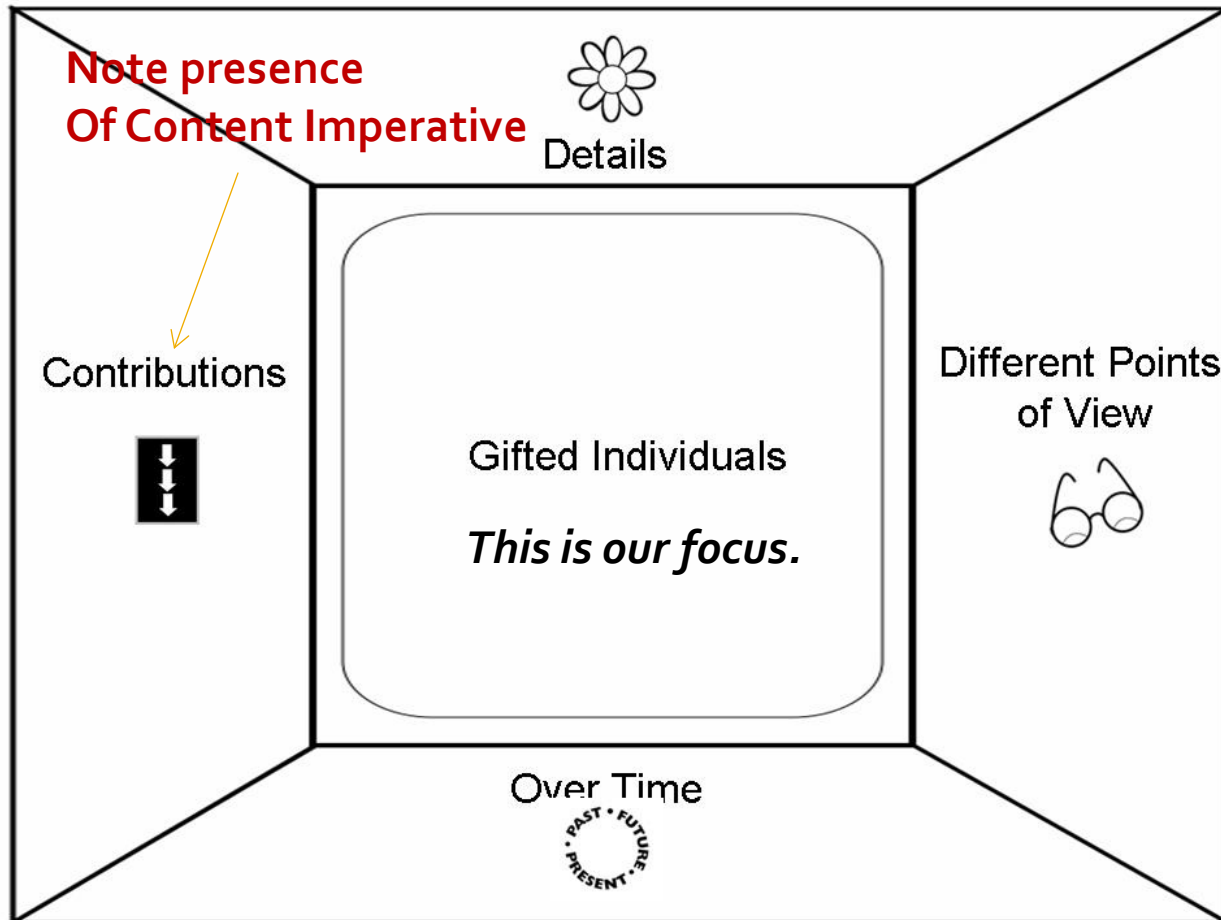
Billy Shakes will tell you that some things are timeless.

Framing the Issue: Icons into Action

What does a picture frame do?



Framing the Gifted



This is a great way to introduce the concept of **framing** and a means by which the gifted can speak about unique socio-emotional issues without the spotlight shining directly on them.

You may consider the Introduction of one or two **Universal Themes** here (fear of failure).

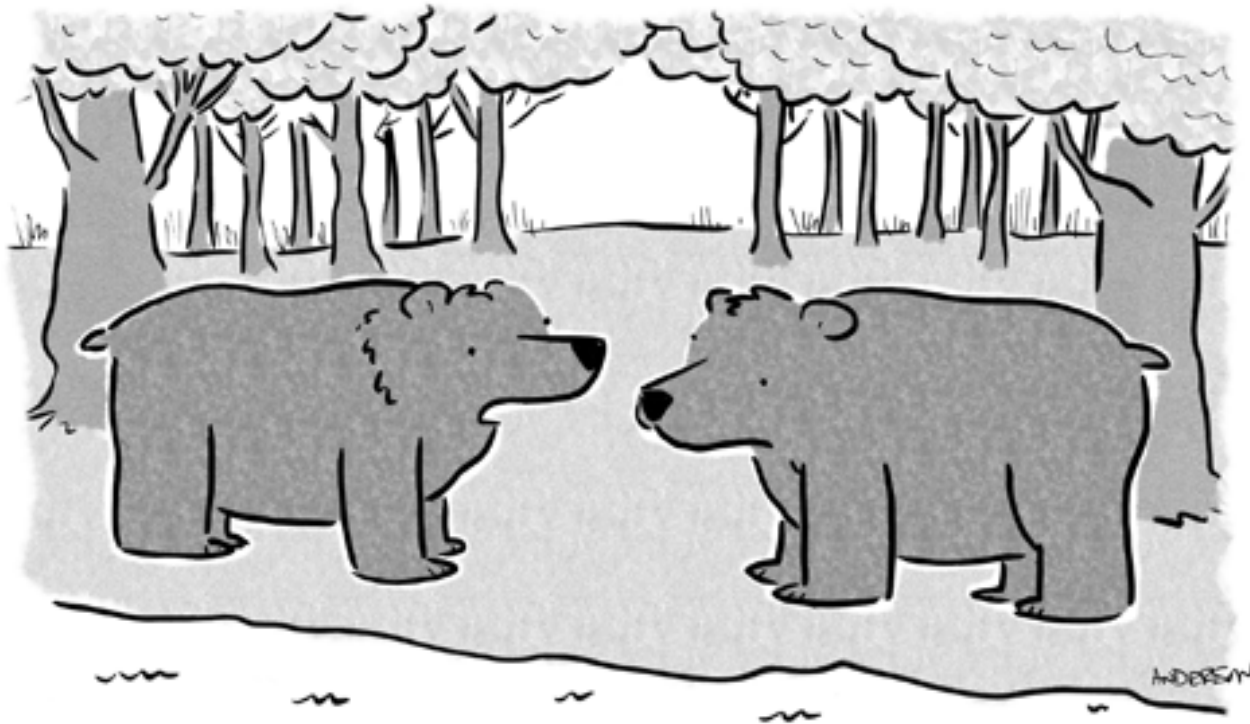
Frame Yourself

- Using the frames provided, create a **self-focused framed lesson** based on the grade level and subject you teach
- Please feel free to use **blended icons and content imperatives** as best suits you
- Pick one or two at your table that you would like to **share with the larger group**

Framing Goldilocks

© MARK ANDERSON

WWW.ANDERSTOONS.COM



"I hate to say it, but you move into a fancy house with porridge and beds, and you're just asking for it."

Let's Create a Tiered Lesson

- Using the story of Goldilocks
- Feel free to suggest your own grade level and subject and/or choose one as a group
- Generally speaking, what background knowledge and skills are required?
- What's the big idea that we are trying to get across (draw upon icons and universal themes)
- How are we tiering, and how many tiers should we use?
- Let's differentiate by process and product

Every Story Has a Purpose

Once upon a time, there was a little girl named Goldilocks. She went for a walk in the forest. Pretty soon, she came upon a house. She knocked and, when no one answered, she walked right in.

At the table in the kitchen, there were three bowls of porridge. Goldilocks was hungry. She tasted the porridge from the first bowl.

"This porridge is too hot!" she exclaimed.

So, she tasted the porridge from the second bowl.

"This porridge is too cold," she said

So, she tasted the last bowl of porridge.

"Ahhh, this porridge is just right," she said happily and she ate it all up.

After she'd eaten the three bears' breakfasts she decided she was feeling a little tired. So, she walked into the living room where she saw three chairs. Goldilocks sat in the first chair to rest her feet.

Every Story has a Purpose

"This chair is too big!" she exclaimed.

So she sat in the second chair.

"This chair is too big, too!" she whined.

So she tried the last and smallest chair.

"Ahhh, this chair is just right," she sighed. But just as she settled down into the chair to rest, it **broke into pieces!**

Goldilocks was very tired by this time, so she went upstairs to the bedroom. She lay down in the first bed, but it was too hard. Then she lay in the second bed, but it was too soft. Then she lay down in the third bed and it was just right. Goldilocks fell asleep.

Every Story has a Purpose

As she was sleeping, the three bears came home.

"Someone's been eating my porridge," growled the Papa bear.

"Someone's been eating my porridge," said the Mama bear.

"Someone's been eating my porridge and they ate it all up!" cried the Baby bear.

"Someone's been sitting in my chair," growled the Papa bear.

"Someone's been sitting in my chair," said the Mama bear.

"Someone's been sitting in my chair and they've **broken it all to pieces**," cried the Baby bear.

They decided to look around some more and when they got upstairs to the bedroom, Papa bear growled, "Someone's been sleeping in my bed,"

"Someone's been sleeping in my bed, too" said the Mama bear

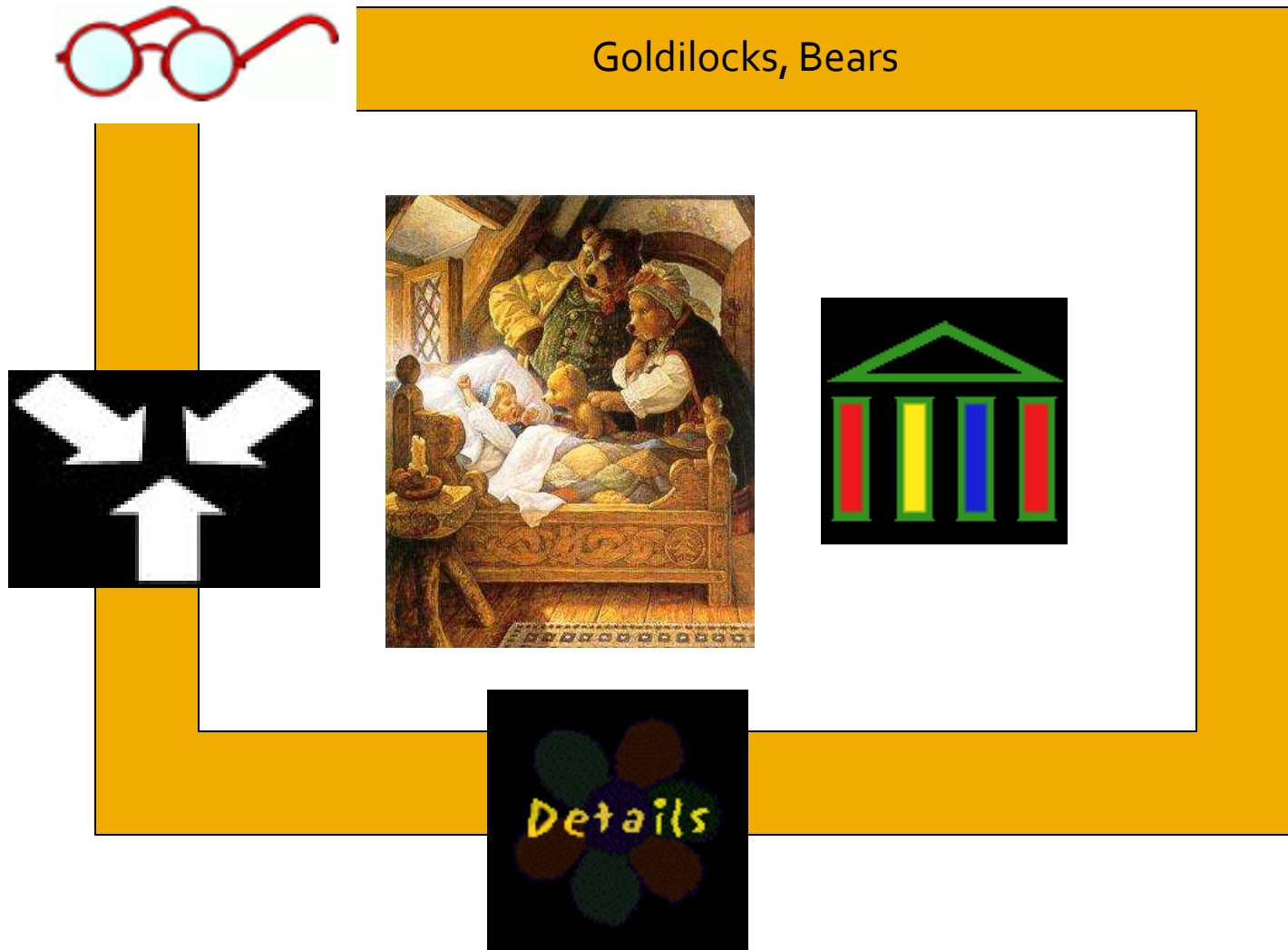
"Someone's been sleeping in my bed and she's still there!" exclaimed Baby bear.

Just then, Goldilocks woke up and saw the three bears. She screamed, "Help!" And **she jumped up and ran out of the room**. Goldilocks ran down the stairs, opened the door, and ran away into the forest. And she never returned to the home of the three bears.

My Example (Social Sciences)

- **Tier I:** Examining the big ideas of the story, as explored through multiple perspectives, converging factors and details therein. Making a case for one or more characters.
- **Tier II:** Looking at Goldilocks as an ethical allegory, contextualized in changing perspectives over time, based on what we do and don't know.
- **Tier III:** Looking at the story in terms of socioeconomic and political issues (internationally) and the rule of law—based on ethics and changing perspectives over time and drawing parallels to global situations.
- Does everyone get where they need to go—individually and collectively?

Tier I: Framing Goldilocks



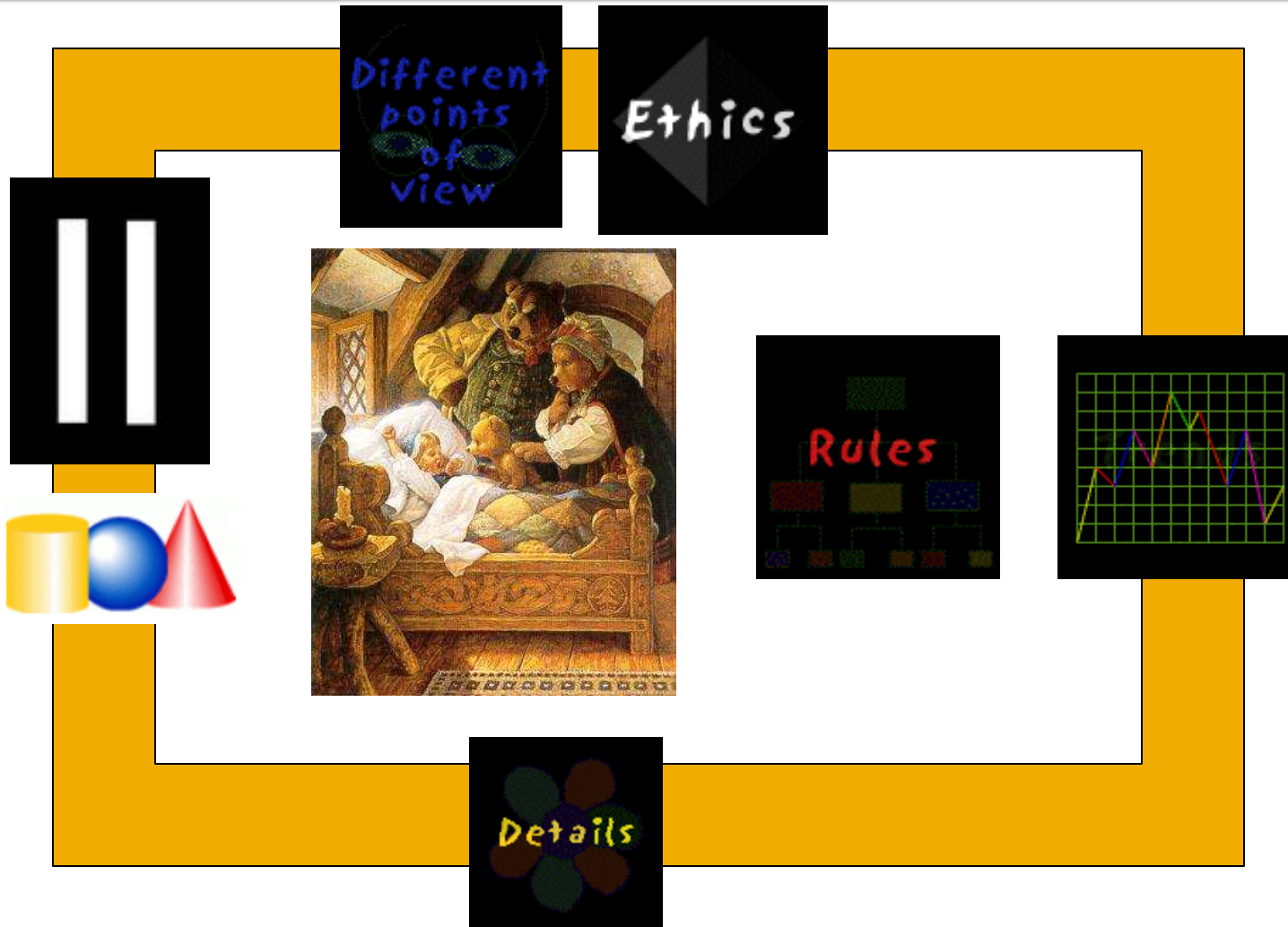
*In this example, we frame the story as a means to discuss **its larger themes**. We look to do so by exploring details, perspectives and the factors that converge to tell the story.*

Tier II: Framing Goldilocks



*In this example, we frame the story as a means to discuss **ethics**. We look to make An ethical case based on details; how different perspectives change over time and what we don't know.*

Tier III: Framing Goldilocks



*In this example, we frame the story as a means to discuss **rules and laws**. We look to make Arguments based on details; how different perspectives and ethics change over parallels to bigger issues.*

Possible Products by Tier

■ Tier I:

- Character monologue (plea before the court)
- Summary of story with recommendations and lessons learned
- Graphic novel featuring characters and themes
- Staged talk show with a moderator and characters as guests
- Trial of Goldilocks

Possible Products by Tier

■ Tier II:

- Identifying **conflicting and recurring themes** and leading a Socratic Seminar to discuss them
- Research paper examining the influence of **socioeconomic, political and cultural events on the way ethics are interpreted by diverse individuals** (including discussions about cultural relevance) and how the story relates
- **Supreme court decision** in *United States and Bears v. Goldilocks and Does 1-12* (rule of law couched in ethical discussions, use language of discipline)

Possible Products by Tier

■ Tier III:

- Explaining how Goldilocks and similar stories help us to interpret **larger universal themes through a variety of lenses**—how do these stories contribute to our understanding of ourselves?
- Draw parallels between Goldilocks and the **Occupy Movement**, surfacing relevant issues and cross-cutting socioeconomic and ethical themes
- Express findings **through the arts** (photography, song, dance, etc.)

Framing Fables at Tables

- Make sure to include grade level and subject
- Ideas about **tiering**, **sensemaking** and **assessment**
- **Products** that will demonstrate that objectives have been reached
- Consider and combine **Universal Themes as well as elements of depth and complexity**
- Nominate a **spokesperson** to discuss what you've done with the rest of the class

Freedom of Choice



- Choice boards (or Tic-Tac-Toe boards) are a way to empower students through choice and to accommodate varying levels of interest, learning style and readiness
- Indispensable for tiering activities

Freedom of Choice

- Work is **different**, not more or less
- Equally active and engaging assignments
- Similar **learning goals and skills, use of key concepts**
- Objectives focus
- Learning contract – teacher directed
- Variety of formats (choice boards, Tic-Tac-Toe, menus)
- Students select options **most appealing** to them
- Empowerment—can also choose specialized items not on the menu

Infusing Choice

- Nothing is more empowering in the learning process than having a say in how content is mastered: CHOICE
- A useful strategy is to differentiate using TIC-TAC-TOE. Students have to connect horizontally, vertically or diagonally to demonstrate mastery of a given topic

Complete even problems in Chapter 12 of your mathematics text	Design a test problem using slope and intercept. Please make sure to include detailed answer sheet.	Describe how the slope/intercept formula is used in the real world, providing at least three examples
Research the origins of the slope/intercept formula and report back to the class	In your group, create and perform a dance that demonstrates the concept of slope and intercept	Complete the problems at this website: www.slopeintercept.com
Free Space: Design an activity and have it approved by teacher		

Infusing Choice: Menus

Choice menus allow greater flexibility in mixing and matching differentiated opportunities for learning. And, just like at your favorite restaurant, you can choose one from each column to feed your brain and the senses!

	Visual	Auditory	Kinesthetic
Knowledge			
Comprehension			
Application			
Analysis			
Synthesis			
Evaluation			

Examples of Choice Menus

U.S. Government

Show what you know by completing three of the activities below. Just like tic-tac-toe, you can complete three in a row, column, or diagonal. Just be sure to do your best work!

Anchor Chart Use a large piece of chart paper to create an anchor chart that will teach your classmates about American government. Be sure to include all key points.	Diagram of the 3 Branches Create a diagram of the 3 branches of government on a large piece of construction paper. Be sure to explain the roles of each branch of government.	Flash Cards Use ten index cards to create flash cards that will help you remember key terms. Write the word on one side and the definition and a picture on the back.
Write a Fiction Story Let's see how creative you can be. Write a one, or more, page fictional narrative from the point of view of the president of the United States.	Write a Picture Book Create an informational picture book about government. Your book should be at least five pages long with illustrations and text on every page.	Write an Opinion Essay Tell us what you think. In a one, or more, page opinion essay, explain which branch of government you think is the most important.
Double Bubble Map Complete a Double Bubble Map that compares two different levels of government or two different branches of government.	President Tree Map Complete the President Tree Map. Be sure to think about the qualifications of becoming president and the roles of the president.	Government Circle Map Inside the circle, give examples of government services. Outside of the circle, map give non-examples of government services.

Diner Menu—Photosynthesis

Appetizer (Everyone Shares)



- Write the chemical equation for photosynthesis.

Entrée (Select One)



- Draw a picture that shows what happens during photosynthesis.
- Write two paragraphs about what happens during photosynthesis.
- Create a rap or song that explains what happens during photosynthesis.

Side Dishes (Select at Least Two)



- Define respiration, in writing.
- Compare photosynthesis to respiration using a Venn diagram.
- Write a journal entry from the point of view of a green plant.
- With a partner, create and perform a skit that shows the differences between photosynthesis and respiration.

Dessert (Optional)



- Create a test to assess the teacher's knowledge of photosynthesis.



Additional Strategies Built Upon Differentiated Instruction

- Incorporating **modified KWL** (Know, Want to Know, Learned)
- **Arts Infusion** (especially valuable for English Learners)
- **RAFT Projects**: Role, Audience, Format, Topic (can be used for individuals and groups)
- **Anchor Assignments/projects** –independent, yearlong activities (designed for early finishers and useful in small group instruction)
- **Socratic Seminars**
- **Web Quests**
- **Contract Learning/Guided Independent Study**

Anchor Activities

- Ongoing assignments that students can undertake independently upon completion of work
- Meaningful (not rote) extension of what is being studied in class
- Tie into content and instruction (not 'busy work') and designed to be enjoyable
- Enhances behavioral management
- Examples (elementary): mind maps; research questions; learning logs; journals; website activities and 'brain busters'
- Can be differentiated
- Example (secondary): illustration of an assigned poem, etc.

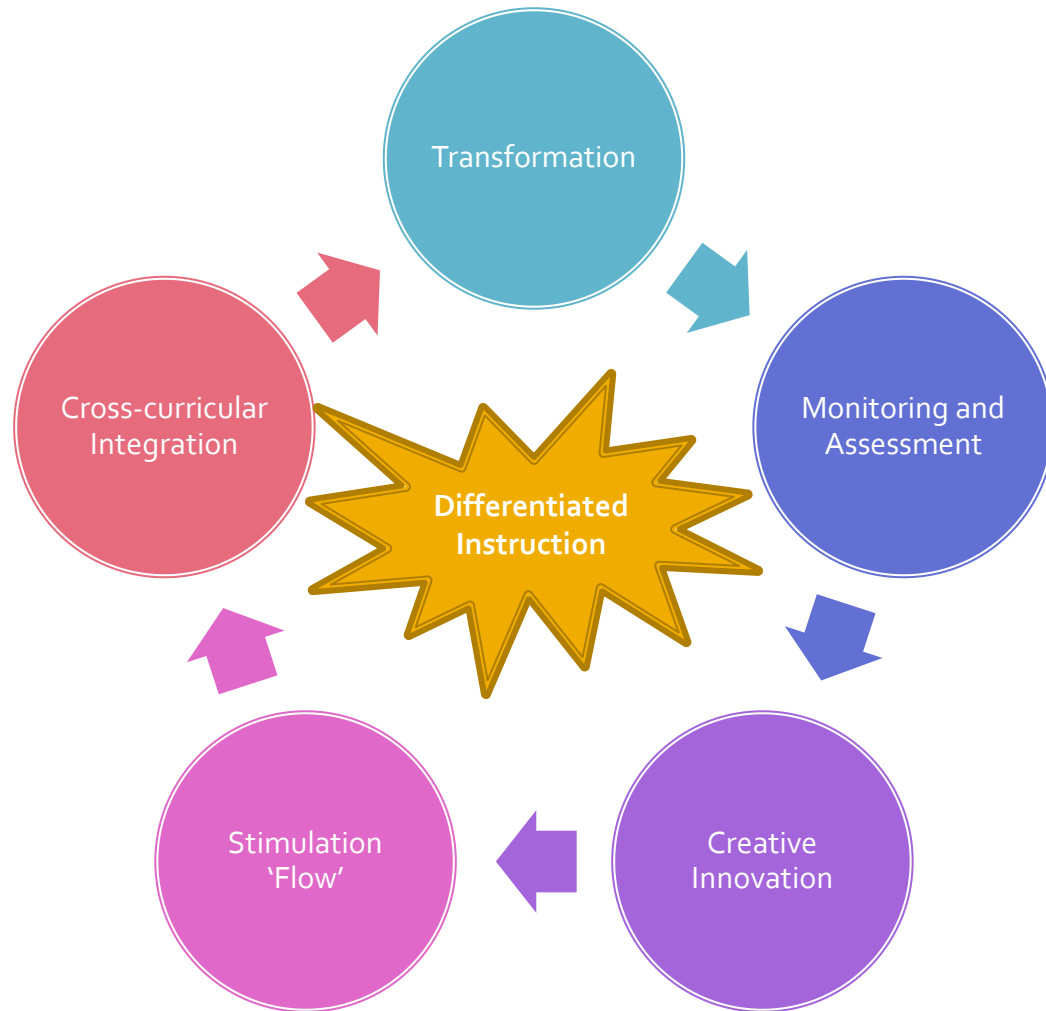
RAFT Example

Role	Audience	Format	Topic
Tutor	Beginning Math Students	Instructions	Show me how to do $y=mx+b$
Attorney	Judge and Jury	Speech (opening argument)	Goldilocks is not guilty of breaking and entering/ theft
Television Reporter	Television Audience (adults)	In-depth report (ala 60 minutes)	Environmental impacts of global warming
Advertiser/ Advocate	Television or radio audience	2-3 minute ad	Negative impacts of smoking/anti-smoking ad

Additional Strategies Built Upon Differentiated Instruction

- Incorporating **modified KWL** (Know, Want to Know, Learned)
- **Arts Infusion** (especially valuable for English Learners)
- **RAFT Projects**: Role, Audience, Format, Topic (can be used for individuals and groups)
- **Anchor Assignments/projects** –independent, yearlong activities (designed for early finishers and useful in small group instruction)
- **Socratic Seminars**
- **Web Quests**
- **Contract Learning/Guided Independent Study**

Everything is Connected!



Comments and Questions

Contact Information

Morgan Appel, Director
Education Department
UC San Diego Extension
9500 Gilman Drive, MC 0170-N
La Jolla, California 92093-0170

mappel@ucsd.edu

858-534-9273

extension.ucsd.edu/education