



The Nuts and Bolts of Differentiation

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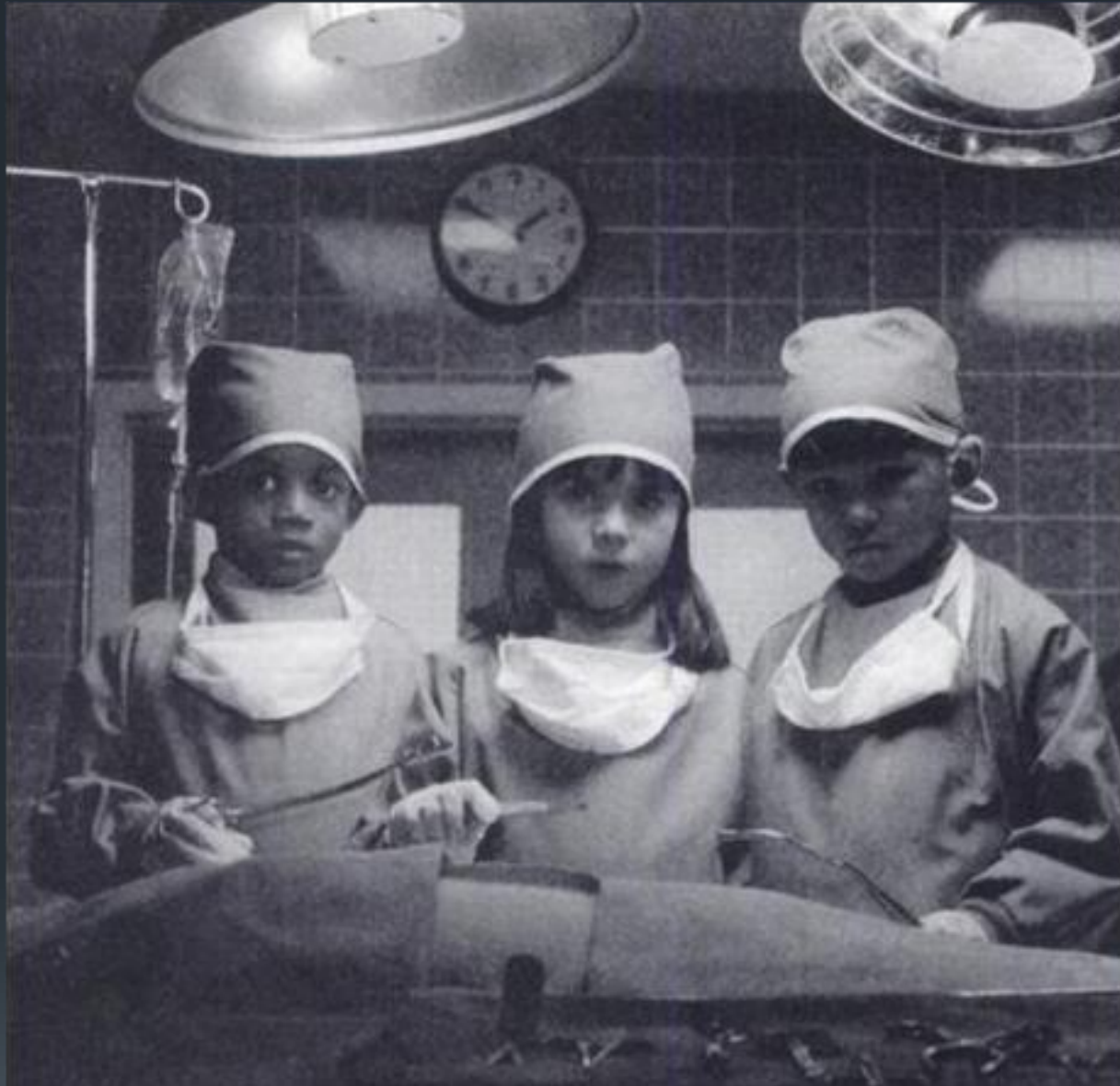
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Project RAP

July, 2016

- 
- If during the first five or six years of school, a child earns good grades and high praise without having to make much effort, what are all the things he doesn't learn that most children learn by third grade?



**Joey, Katie and Todd
will be performing your bypass.**



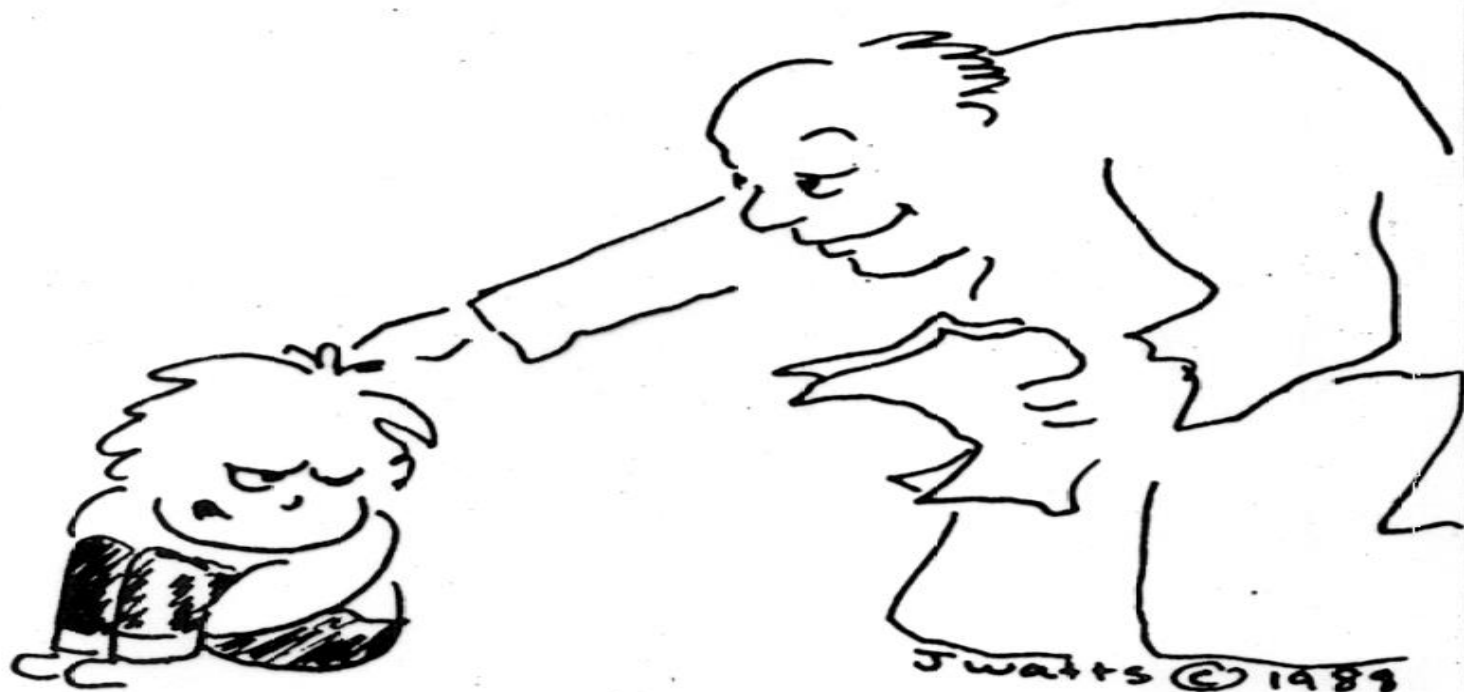
POP QUIZ

Fact or Fiction?




1. Gifted children thrive with more work.

Fiction



If I admit to being gifted,
exactly what's in it for me ?



2. Allowing a gifted child to tutor another child is usually a very effective service option. You really learn something when you teach it.

Fiction



3. Just because a child is gifted in one area does not mean he is gifted in all areas.

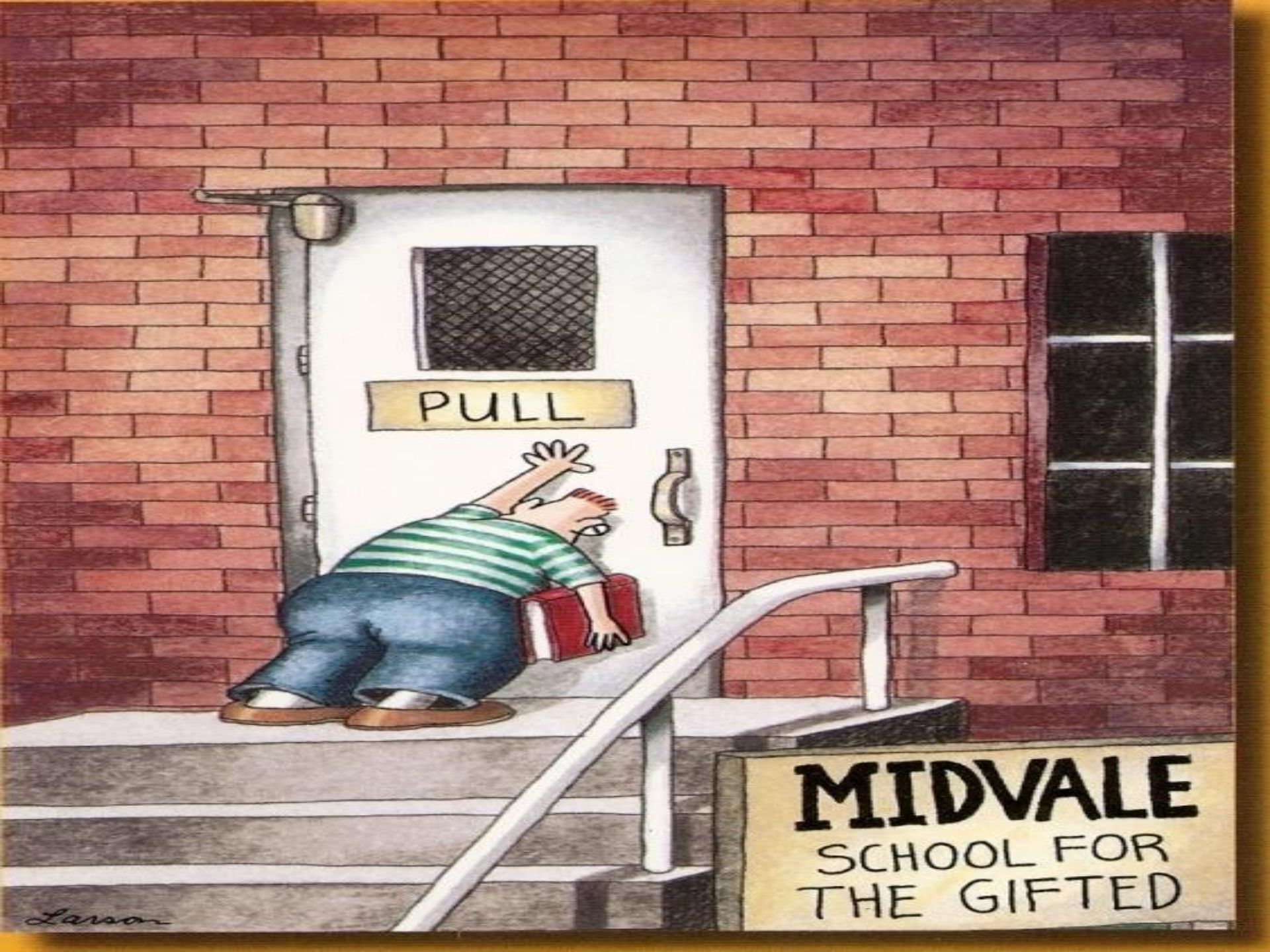
Fact



JUST LOOK AT HIS
HANDWRITING -
HOW CAN HE
BE GIFTED?

4. Do not expect gifted students to be model students.


Fact



PULL

MIDVALE
SCHOOL FOR
THE GIFTED

Larson



5. Gifted students are not at risk. If they really have high ability, they can get by on their own.

Fiction

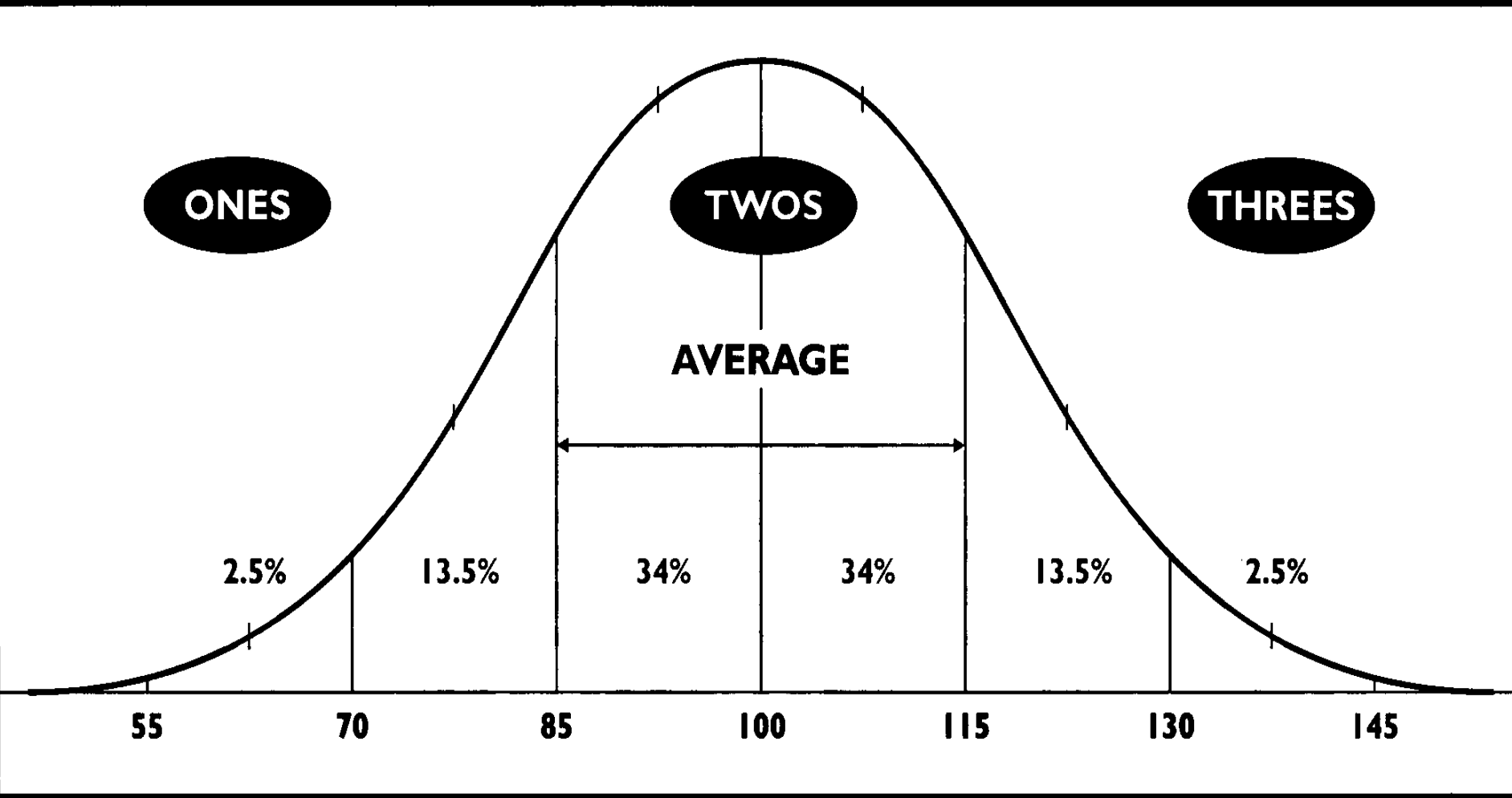


* 'C' IN ASTROPHYSICS, 'B MINUS' IN CALCULUS...
WHAT KIND OF GENIUS ARE YOU?"

6. Giftedness can easily be measured by intelligence tests & tests of achievement.

Fiction

IQ SCORES AND PERCENTAGE OF STUDENTS AT EACH LEVEL



7. A good teacher can teach any student, because if good teaching is used, that is all that is needed.

Fiction



8. Even if the curriculum is accelerated for all students, services are still needed for gifted learners.

Fact

Service Options

- Acceleration
- Advanced Placement and Honors Courses
- Collaborative Teaching and Consultation Services
- Competitions
- Concurrent College Enrollment/Dual Credit
- Differentiated Study Experiences for Individuals and Cluster Groups in the Regular Classroom
- Distance Learning/Internet Courses
- Enrichment Service During the School Day
- Independent Study
- International Baccalaureate
- Magnet Schools/ Self-contained Classrooms
- Mentorships
- Seminars
- Special Counseling Services: Group and Individual
- Summer Programs
- Travel Study Options



9. All children are gifted.


Fiction

Five Categories of Gifted

- Kentucky Law (KRS 157.200 In) includes five categories of gifted within exceptional students:
 - General Intellectual
 - Specific Academic
 - Leadership
 - Creativity
 - Visual and/or Performing Arts

10. Most children suffer emotionally and socially when grade accelerated.

Fiction



A Nation Deceived: How
America Holds Back Its
Brightest Students

A Nation Empowered:
Evidence Trumps Excuses
Holding Back America's
Brightest Students

11. The brightest students tend to make the lowest achievement gains in school.

Fact

High Achieving Students in the Era of NCLB

Thomas B. Fordham Institute

EXECUTIVE SUMMARY

This publication reports the results of the first two (of five) studies of a multifaceted research investigation of the state of high-achieving students in the No Child Left Behind (NCLB) era. *Part I: An Analysis of NAEP Data*, authored by Brookings Institution scholar Tom Loveless, examines achievement trends for high-achieving students (defined, like low-achieving students, by their performance on the National Assessment of Educational Progress, or NAEP) since the early 1990s and, in more detail, since 2000.


Part II: Results from a National Teacher Survey, authored by Steve Farkas and Ann Duffett of Farkas Duffett Research Group, reports on teachers' own views of how schools are serving high-achieving pupils in the NCLB era.

Here are the key findings:

- **While the nation's lowest-achieving youngsters made rapid gains from 2000 to 2007, the performance of top students was languid.** Children at the tenth percentile of achievement (the bottom 10 percent of students) have shown solid progress in fourth-grade reading and math and eighth-grade math since 2000, but those at the 90th percentile (the top 10 percent) have made minimal gains.
- **This pattern—big gains for low achievers and lesser ones for high achievers—is associated with the introduction of accountability systems in general, not just NCLB.** An analysis of NAEP data from the 1990s shows that states that adopted testing and accountability regimes before NCLB saw similar patterns before NCLB: stronger progress for low achievers than for high achievers.

2009 NAEP Results in Science

- 1% of fourth graders scored at Advanced Levels
- 2% of eighth graders scored at Advanced Levels
- 1% of twelfth graders scored at Advanced Levels
- 40% of twelfth graders scored below the Basic Level



Mind the (Other) Gap! The
Growing Excellence Gap in K-12
Education

Talent on the Sidelines: Excellence
Gaps and America's Persistent
Underclass

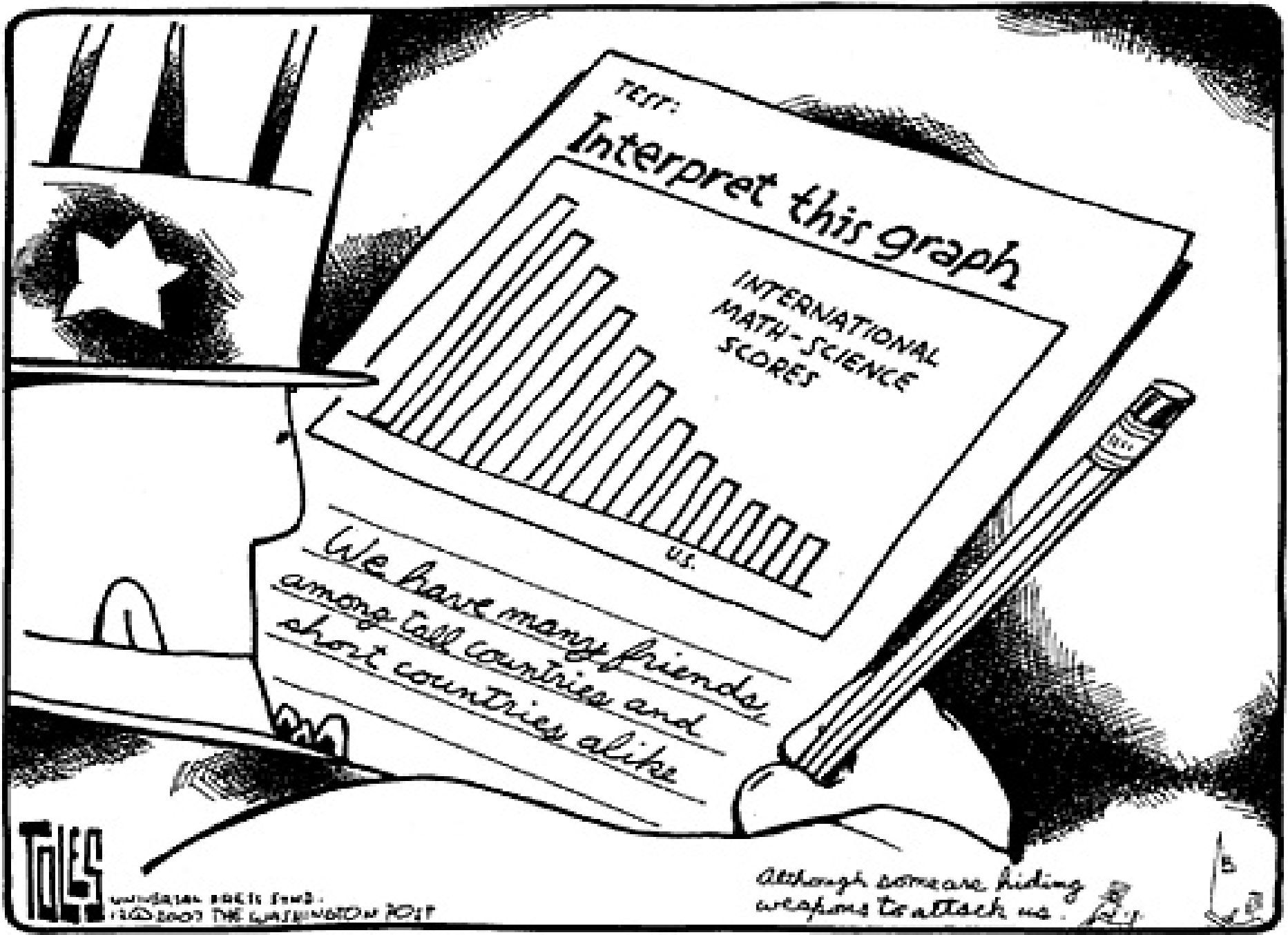
In Grades 4 and 8, a much smaller percentage of low-income, minority, and English-Language learner students score at the Advanced Level on NAEP in math.

Fourth graders:

- Low income 1.5%
- Black .9%
- Hispanic 1.4%
- ELL .6%

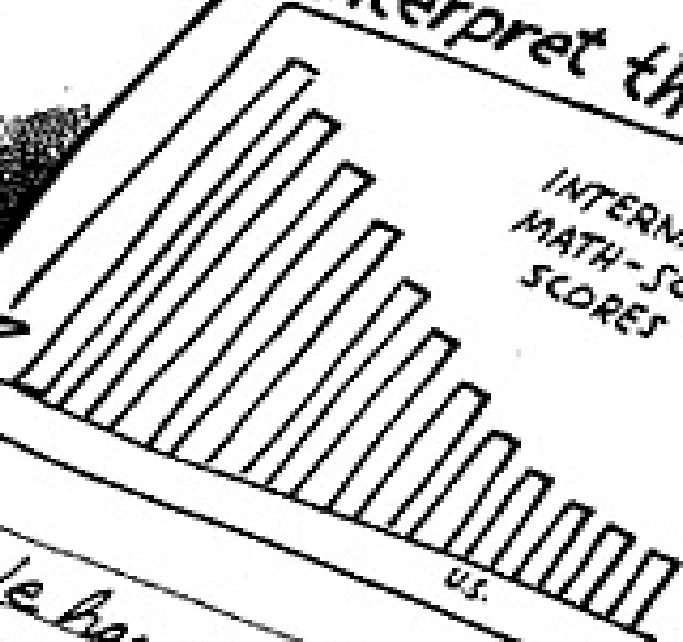
Eighth graders:

- Low income 2%
- Black 1.2%
- Hispanic 1.8%
- ELL .5%



ref:
Interpret this graph

INTERNATIONAL
MATH-SCIENCE
SCORES



*We have many friends
among tall countries and
short countries alike*

*Although someone is hiding
weapons to attack us.*

TALS

UNIVERSITY OF CALIFORNIA
1300 2007 THE WASHINGTON POST



12. Gifted students are needed in all classes so that students do not lack positive role models for academic and social leadership.

Fiction

Remember...



- Gifted kids' needs stem from their strengths – not their deficiencies.



What are the characteristics of a gifted child?

Gifted Characteristics: Cognitive

- Analytical
- Conceptual
- Creative
- Critical
- Focused
- Inquisitive
- Systematic
- Verbal
- Versatile
- Well-informed

<http://tip.duke.edu/node/99>

Gifted characteristics: social and emotional

- Emotive
- Energetic
- Humorous
- Idealistic
- Self-accepting
- Independent
- Sensitive
- Influential




What is it? What is it not?

Differentiation



What is it not?

- Individual lesson plans
- A set of strategies
- Hands-on only
- A list of choices
- Additional assignments
- Not just different

- 
- “Differentiation isn’t a fad. Differentiation isn’t a trend. *Differentiation isn’t an invitation.* Differentiation is meeting the needs of our students. Differentiation is doing what is best for our students. *Differentiation is an expectation.*”

(Hewitt & Weckstein, 2011, p. 135)



What is it?

- “Differentiation is a philosophy – a way of thinking about teaching and learning.”

(Tomlinson & Imbeau, 2010, p. 13)

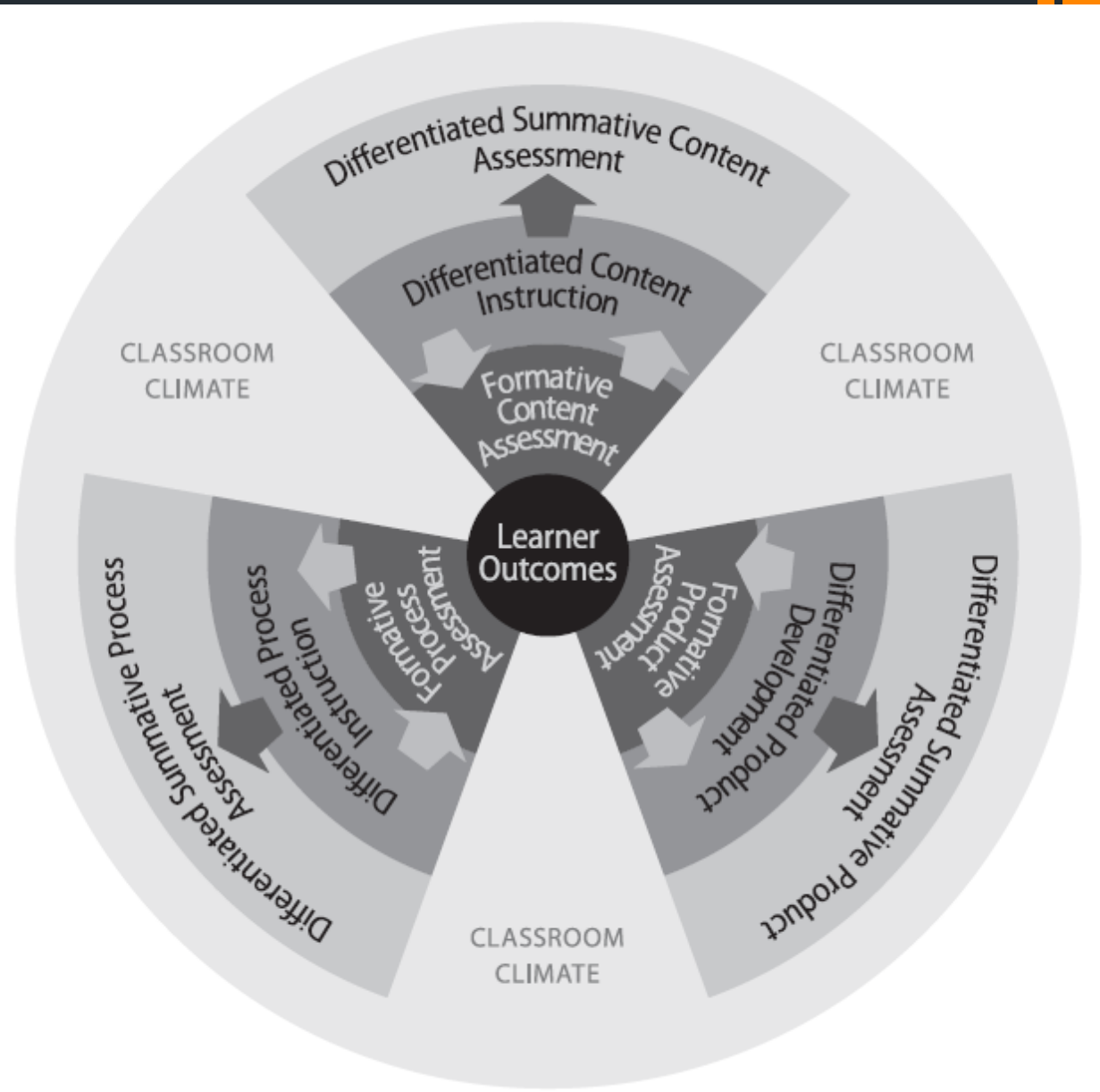


The match is key...

- “A teacher who differentiates effectively matches the content (basic to complex), the level of the thinking process, the sophistication and choice of the product, and/or the assessment to the student or cluster of students.”


(Roberts & Inman, 2013, p.2)

The Effective Differentiation Model: An Instructional Model to Support Continuous Progress and Lifelong Learning





Climate and Culture

- 
- “I’ve come to a frightening conclusion that I am the decisive element in the classroom. It’s my personal approach that creates the climate. It’s my daily mood that makes the weather. As a teacher, I possess a tremendous power to make a child’s life miserable or joyous. I can be a tool of torture or an instrument of inspiration. I can humiliate or heal. In all situations, it is my response that decides whether a crisis will be escalated or de-escalated and a child humanized or dehumanized.”

(Ginott, 1965/2003, pp. 15-16)



Culture must develop and support...

- **Diversity**
 - Interests
 - Backgrounds
 - Experiences
 - Readiness
 - Learning profiles



What do you know?

Activity



Important questions

- Who are you as learners? (Are you all alike or are there important differences?)
- Given the differences we see, how should I teach you?
- If our classroom is going to work for all of us, what will it be like? (How will it need to function? What roles will each of us play?)
- How can I learn more about your starting points, interests, and best ways of learning?
- If we have a differentiated classroom, can it be fair? (What will “fair” mean in this room?)
- What will success in this class mean? (How will I know if you’re succeeding? How will you know?)

(Tomlinson & Imbeau, 2010, pp. 45–46)



Culture must develop and support...

- Diversity
- Challenge, High Expectations, and Risk Taking

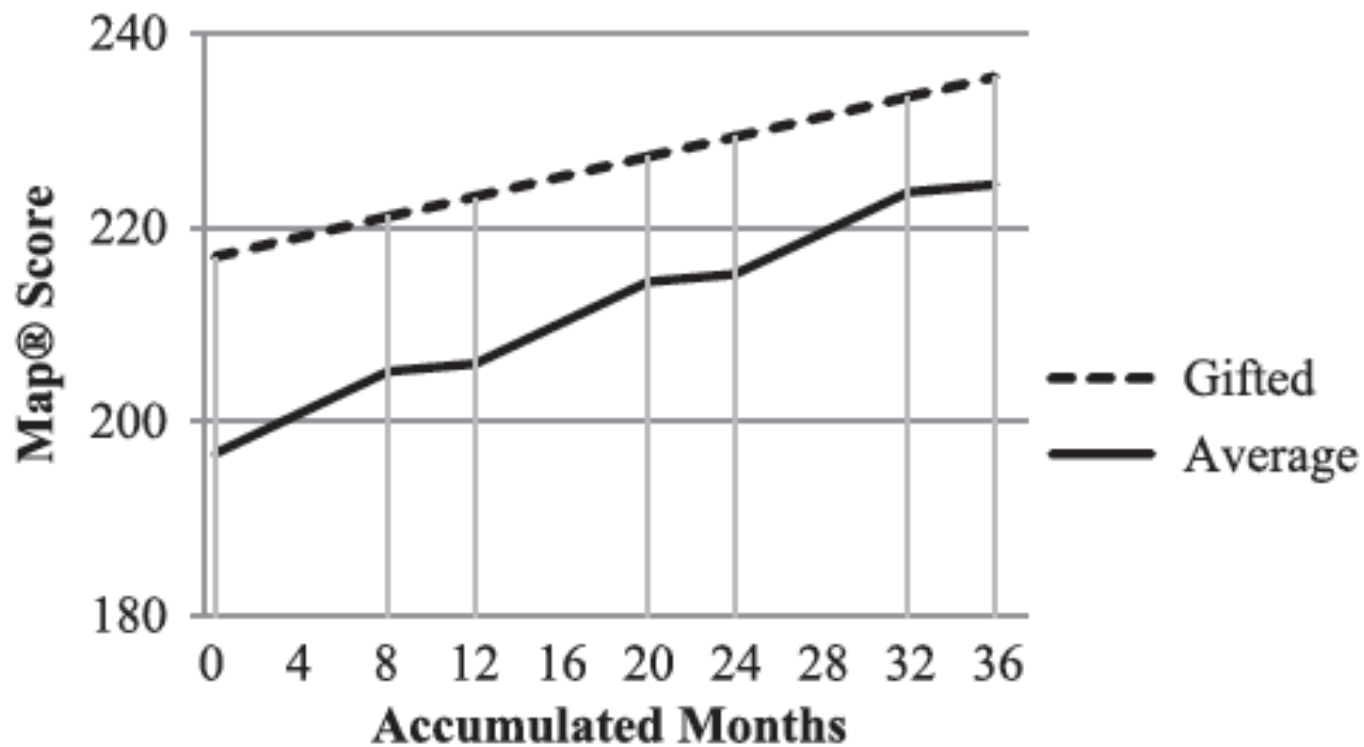


Figure 3. Model implied reading growth for gifted and average students at school A


Note. School year growth was observed between months 0-8, 12-20, and 24-32. Summer growth was observed between months 8-12, 20-24, and 32-36.



How a person views the origin of talent is important!

- If you see talent as something you demonstrate...
Fixed Mindset
- If you see talent as something to be developed...
Growth Mindset

Carol Dweck, *Mindset: The New Psychology of Success*

- 
- “Success is about being your best self, not about being better than others; failure is an opportunity, not a condemnation; effort is the key to success.”

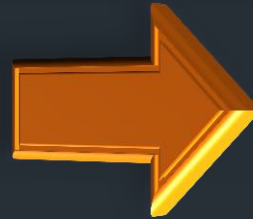
(Dweck, 2007, p. 44).




Culture must develop and support...

- Diversity
- Challenge, High Expectations, and Risk Taking
- **Instruction through Assessment**

- Preassessment
- Formative assessment
- Summative assessment



Continuous
Progress



Assessment is
today's means of
modifying tomorrow's
instruction.

-Carol Tomlinson



Grading and Differentiation

- “There is no inherent conflict in sound grading practices and the philosophy of differentiation. What teachers perceive to be issues typically arise from grading practices that are misaligned with best practice grading, not because grading and differentiation are misaligned.”



Culture must develop and support...

- Diversity
- Challenge, High Expectations, and Risk Taking
- Instruction through Assessment
- **Instruction through Procedures and Routines**



Questions Abound!

- How do I organize materials and resources?
- What are different grouping possibilities?
- How can students get into groups smoothly?
- How do I get multiple learning experiences started at the same time?
- How do I know when groups need to change?
- What do I do with students who finish at different times?
- How do I track progress?



Resources Abound!

- Beasley, J. (2009, July). *Establishing classroom routines that support the differentiated classroom*. Presentation at the Association for Supervision and Curriculum Development 2009 Conference, Houston, TX.

http://ces.shcsc.k12.in.us/Pages/ProfessionalDevelopment/Work%20Stations/1507T_Establishing_Classroom_%28Beasley%29.pdf

- Survival Toolkit handout

In What Ways Can I....?

- Give directions for group work?
- Assign groups?
- Handle questions during work time?
- Establish routines for handling paperwork?
- Enable smooth transitions?
- Create routines for "ragged time"?



Giving Directions for Groupwork

- If the whole class is doing the same activity then give the directions to the whole group.
- Do not give multiple task directions to the whole class.
- For small group work, tape directions so students can listen to them repeatedly.
- Use task cards to give directions to small groups.
- Give directions to a group member the day before.
- A general rule is that once the teacher has given directions the students can't interrupt while he/she is working with a small group.
 - "Ask Me" Visors
 - Expert of the Day
 - Consultants
 - Keeper of the Book



Assigning Groups

- Clothes pins with student names to assign them to a particular task
- Color code children to certain groups (a transparency with student names in color works well)
- Pre-assigned groups
- Be sure to include groups by readiness, interest, learning profile, by student choice, teacher choice, random, homogeneous and heterogeneous

Flexible Grouping Chart

Date: Monday, Feb 2

Computer	Invitations	Skills	Teacher
Jimmy	Tonya	Amy	Steven
Michael	Tim	Erio	Chloe
Heidi	Queen	Katie	○
Catherine	Regan	Stephanie	○
Chris	Jane	○	○

Note: This teacher used the term "Invitations" for permanent folders inside of which she gave students assignments based on readiness, interest, or learning style

Pre-Assigned "Standing" Groups

10 O'Clock Groups

Interest/Strength-
Quads

11 O'Clock Groups

Mixed Readiness
Quads



1 O'Clock Groups

Similar Readiness
Selected Quads

2 O'Clock Groups

Student -
Triads



If students are stuck about what to do next when you're with a group...



- They should first try hard to **RECALL** what you said.
- If that doesn't work, they should close their eyes, see you talking, use good practical intelligence, and **IMAGINE** logically what the directions would have been for the task.
- If that doesn't help, they can **CHECK** with a classmate (someone at their table or nearby doing the same task). This should be done in a whisper.
- If that doesn't work, go to a designated "EXPERT of the day" who has the skills necessary to provide guidance. The "EXPERT" should continue with his work, stopping only long enough to help someone who is genuinely stuck. (Tomlinson, 1999, p. 102)

If all else fails, begin with an anchor activity until the teacher can get to you.

I am conducting research on my math project.



I am working on an Anchor Activity.



I am meeting with my Math Project Team.



I am ready to meet with the teacher.



Hockett, 2007

Green = We're working fine!



Yellow = We need you over here, but we can continue working!



Red = S.O.S. We need you here right now, we're stuck!



Upside down during task




Right-side up when finished

COLORED CUPS FOR MANAGING GROUPS

You can post a sign like this in the room to teach students how to use the system.

Place cups on desks prior to the start of the period to "signal" students that they will be doing group work.

Hockett, 2007



The key is to practice
procedures and routines early
in the school year and often.




Culture must develop and support...

- Diversity
- Challenge, High Expectations, and Risk Taking
- Instruction through Assessment
- Instruction through Procedures and Routines
- **A Community of Learners**



Three Facets of Building A Classroom Community

- Physical Environment
- Emotional Environment
- Academic Environment

- 
- “It is certainly the case that teachers who lead effectively for differentiation operate from a clear sense that classrooms should model a world in which learning is rewarding and in which mutual respect, persistent effort, and shared responsibility make everyone stronger.”

(Tomlinson & Imbeau, 2010, p. 26)



Culture must develop and support...

- Diversity
- Challenge, High Expectations, and Risk Taking
- Instruction through Assessment
- Instruction through Procedures and Routines
- A Community of Learners
- **Excellence in Teaching**



Excellence is...


Removing the learning ceiling!

Domain	Distinguished	Developing	Basic
Interest	<ul style="list-style-type: none"> ◆ assesses students interests (e.g., interest inventory) and uses to inform instruction ◆ consistently offers students choices for learning ◆ promotes student interests beyond the classroom ◆ makes connections between content and student interests ◆ connects most content to real-world experiences and situations ◆ consistently plans instruction around student interests ◆ consistently uses flexible grouping based on student interests 	<ul style="list-style-type: none"> ◆ has awareness of students’ interests ◆ sometimes offers students choices for learning ◆ develops student interests in the content area ◆ sometime makes connections between content and student interests ◆ connects some content to real-world experiences and situations ◆ Sometimes plans instruction around student interests ◆ sometimes uses flexible grouping based on student interests 	<ul style="list-style-type: none"> ◆ lacks awareness of student interests ◆ offers no choice for learning ◆ expects students to be interested in content ◆ makes no connections between content and student interests ◆ makes no connections between content and real world ◆ does not plan instruction around student interests ◆ does not use flexible grouping based on student interests
Readiness	<ul style="list-style-type: none"> ◆ consistently uses pretesting to diagnose student readiness and inform instruction ◆ consistently modifies curriculum for student readiness ◆ consistently uses flexible grouping ◆ uses ongoing assessment data to offer intervention and enrichment/extension as needed 	<ul style="list-style-type: none"> ◆ sometimes uses pretesting to inform instruction ◆ sometimes modifies curriculum for student readiness ◆ sometimes uses flexible grouping ◆ does some intervention and enrichment/extension 	<ul style="list-style-type: none"> ◆ expects all students to have prerequisite skills (does not use pretesting to inform instruction) ◆ teaches to “the middle” (does not modify curriculum for student readiness) ◆ does not use flexible grouping; groups by “ability” ◆ fails significant numbers of students
Strength (Learning Profile)	<ul style="list-style-type: none"> ◆ consistently teaches to multiple learning modalities (visual, auditory, tactile) ◆ consistently integrates students’ multiple intelligences into instruction over time (e.g. intrapersonal, interpersonal, logical/ mathematical, verbal/linguistic, visual /spatial, bodily/kinesthetic, musical/rhythmic) ◆ focuses and builds on student strengths 	<ul style="list-style-type: none"> ◆ has awareness of student learning modalities ◆ sometimes considers multiple intelligences when planning instruction ◆ sometimes builds on student strengths 	<ul style="list-style-type: none"> ◆ lacks awareness of student learning modalities ◆ plans instruction without considering students’ multiple intelligences ◆ focuses on student weaknesses

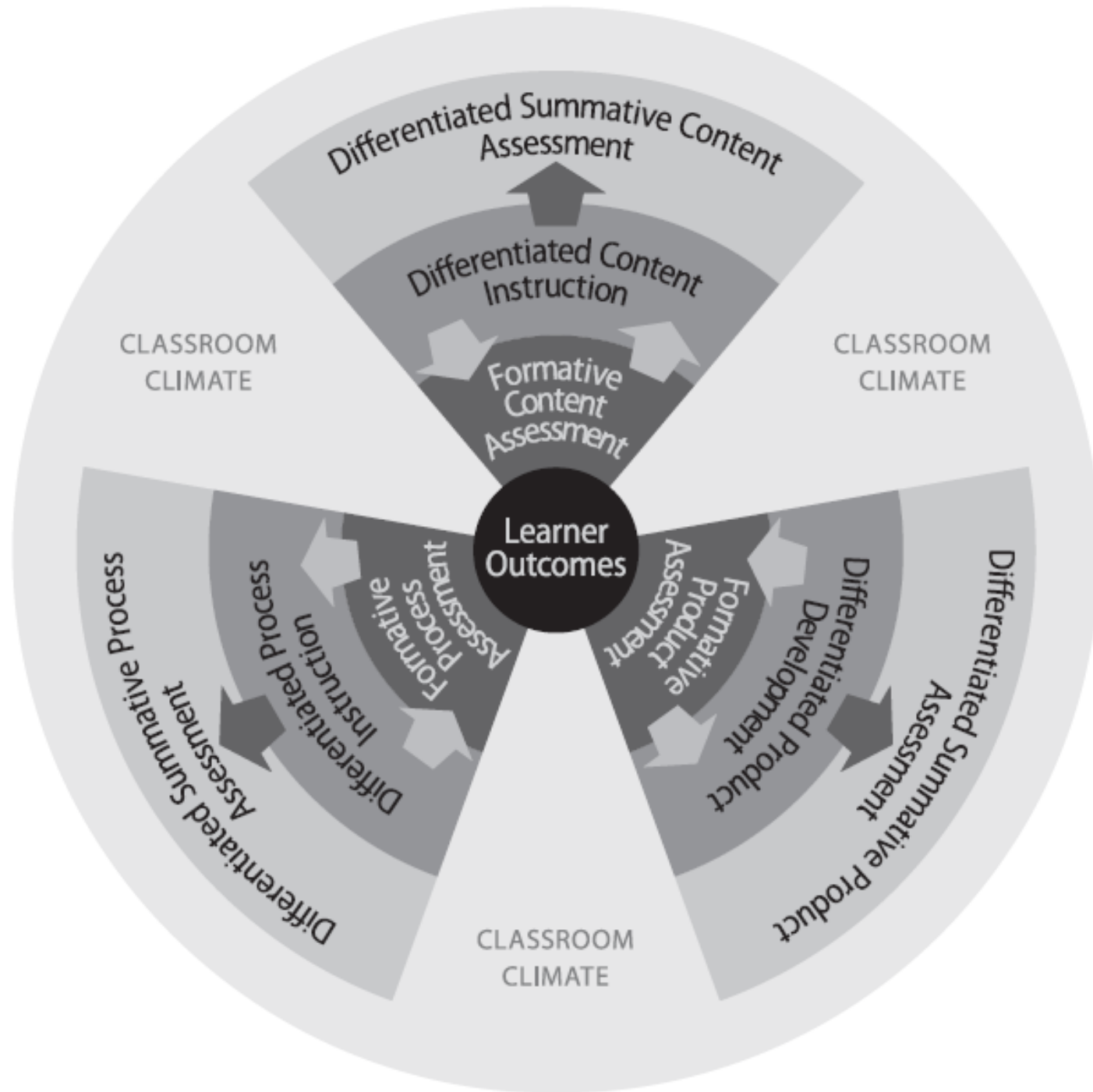
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Domain	Distinguished	Developing	Basic
Content	<ul style="list-style-type: none"> ◆ adjusts content based on all students' needs to meet standards ◆ varies teaching and stretches content ever year ◆ provides intervention and enrichment as needed 	<ul style="list-style-type: none"> ◆ adjusts content based on some students' needs to meet standards ◆ varies teaching slightly from year to year ◆ provides some intervention and enrichment 	<ul style="list-style-type: none"> ◆ does not adjust content based on students' needs ◆ teaches virtually the same way every year (the content does not change even though the students do) ◆ does not provide intervention and enrichment
Process	<ul style="list-style-type: none"> ◆ consistently uses multiple methods of grouping students ◆ uses variety of instructional practices (cooperative learning, direct instruction, project-based learning, inquiry, questioning, etc.) ◆ adjusts rate of instruction and reteaches as needed ◆ provides students multiple and varied opportunities to practice skills (e.g. in class and homework) 	<ul style="list-style-type: none"> ◆ sometimes uses different methods of grouping students ◆ varies instructional practices at times ◆ adjusts rate of instruction and reteaches at times ◆ provides students some opportunities to practice skills 	<ul style="list-style-type: none"> ◆ primarily groups students homogeneously by "ability"(uses only one method of grouping students) ◆ primarily relies on lecture/direct instruction (does not vary instructional practices) ◆ does not adjust rate of instruction and/or reteach ◆ provides primarily skill and drill homework for practicing skills
Product	<ul style="list-style-type: none"> ◆ consistently uses a combination of formative and summative assessment ◆ consistently uses a combination of informal and formal assessment ◆ uses a variety of assessment strategies (pencil/paper tests, performance assessments, etc.) ◆ bases student evaluation on standards ◆ consistently provides student multiple opportunities to show what they know and provides students some choices ◆ consistently allows/provides re-assessments to promote student mastery 	<ul style="list-style-type: none"> ◆ uses more summative than formative assessment ◆ sometimes uses a combination of informal and formal assessments ◆ sometimes varies assessment strategies ◆ bases student evaluation on standards and other criteria (e.g., effort or conduct) ◆ sometimes provides students multiple opportunities to show what they know ◆ sometimes allows/provides re-assessments to promote student mastery 	<ul style="list-style-type: none"> ◆ uses summative assessment exclusively ◆ uses formal or informal assessments exclusively ◆ uses one assessment strategy (e.g., pencil/paper tests) ◆ bases student evaluation largely on criteria other than standards (effort, neatness, conduct, etc.) and does not clearly tie evaluation to standards ◆ uses primarily one form of assessment (pencil/paper tests) ◆ tests for concepts and skills one time (does not allow/provide continual assessment)

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- 
- “A teacher who lives the differentiated lifestyle in the classroom views every aspect of his or her teaching, from the simplest to the most complex task, through a differentiated lens.”

(Westphal, 2011, p. 2)





Learner Outcomes

Questions Leading to Appropriate Differentiation

Planning

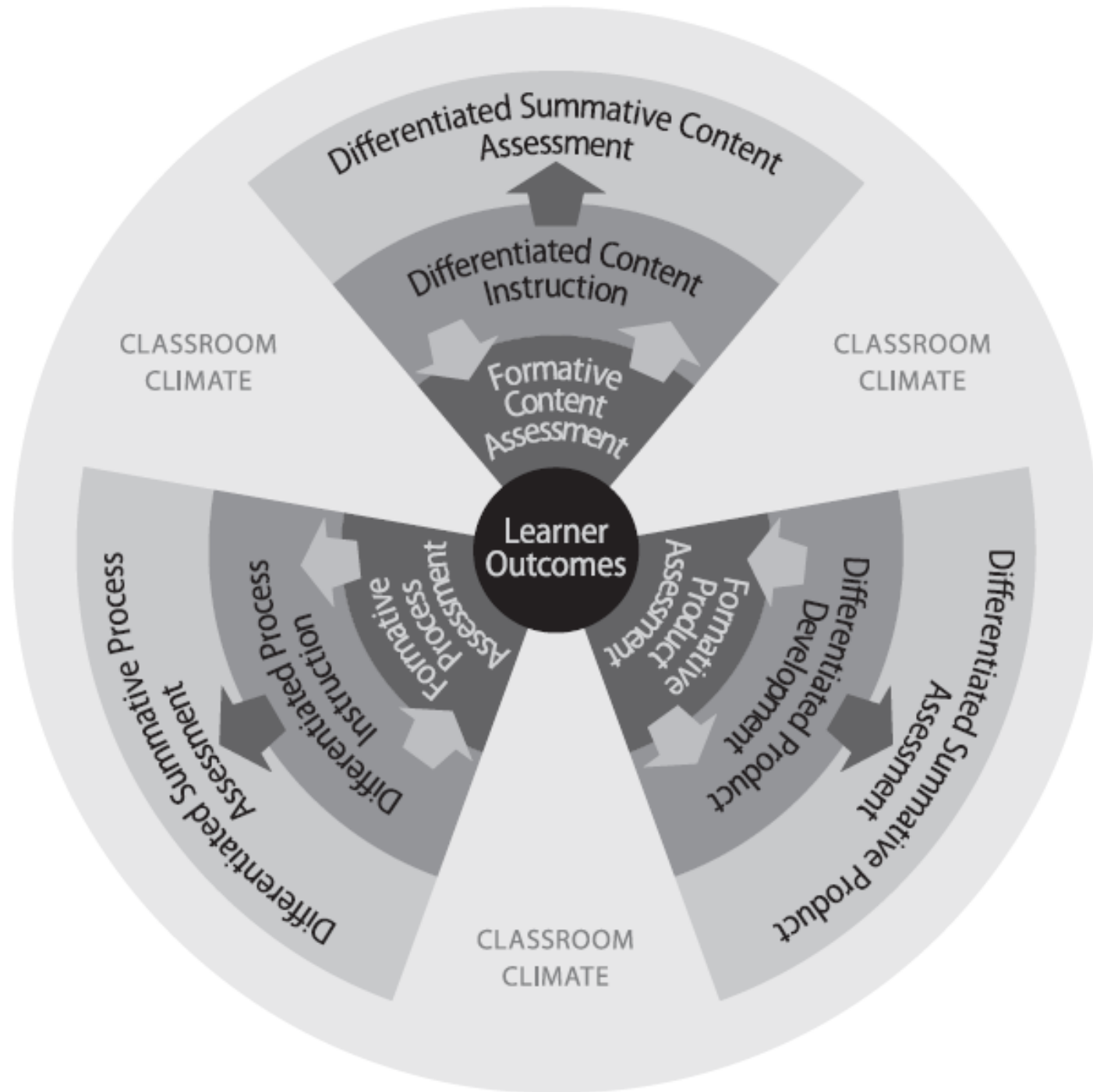
- What do I want students to know, understand, or to be able to do?

Preassessment

- Who already knows and understands the information and/or can do it? Who needs additional support in order to know, understand, and/or demonstrate the skills?

Differentiation

- What can I do for him, her, or them so they can make continuous progress and extend their learning?





Instructional Dimensions



Teachers can differentiate...

Content

- What do you want the students to know?

Process

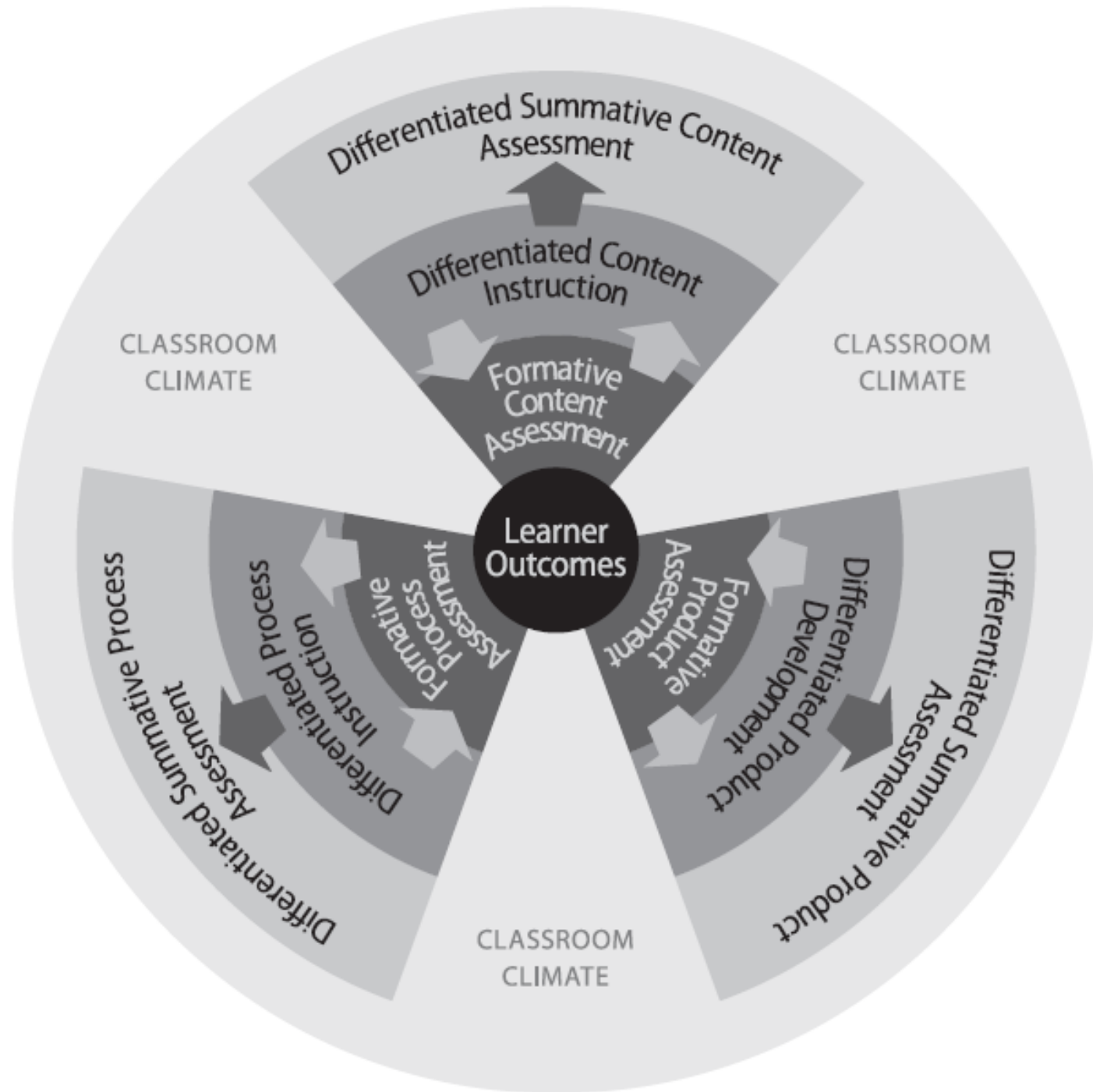
- What do you want the students to do cognitively with what they know?

Product

- How can students demonstrate what they've learned?

Assessment

- How do you assess what has been learned?





Differentiation Strategies

- Before we explore differentiation strategies, we must examine preassessment.



The linchpin of differentiation

Preassessment



Differentiation is intentional.

Without preassessment, children are not making progress; it is like they are running in place with their learning.



Remember...

that a child cannot learn
what she already knows.

Questions Leading to Appropriate Differentiation

Planning


- What do I want students to know, understand, or to be able to do?

Preassessment

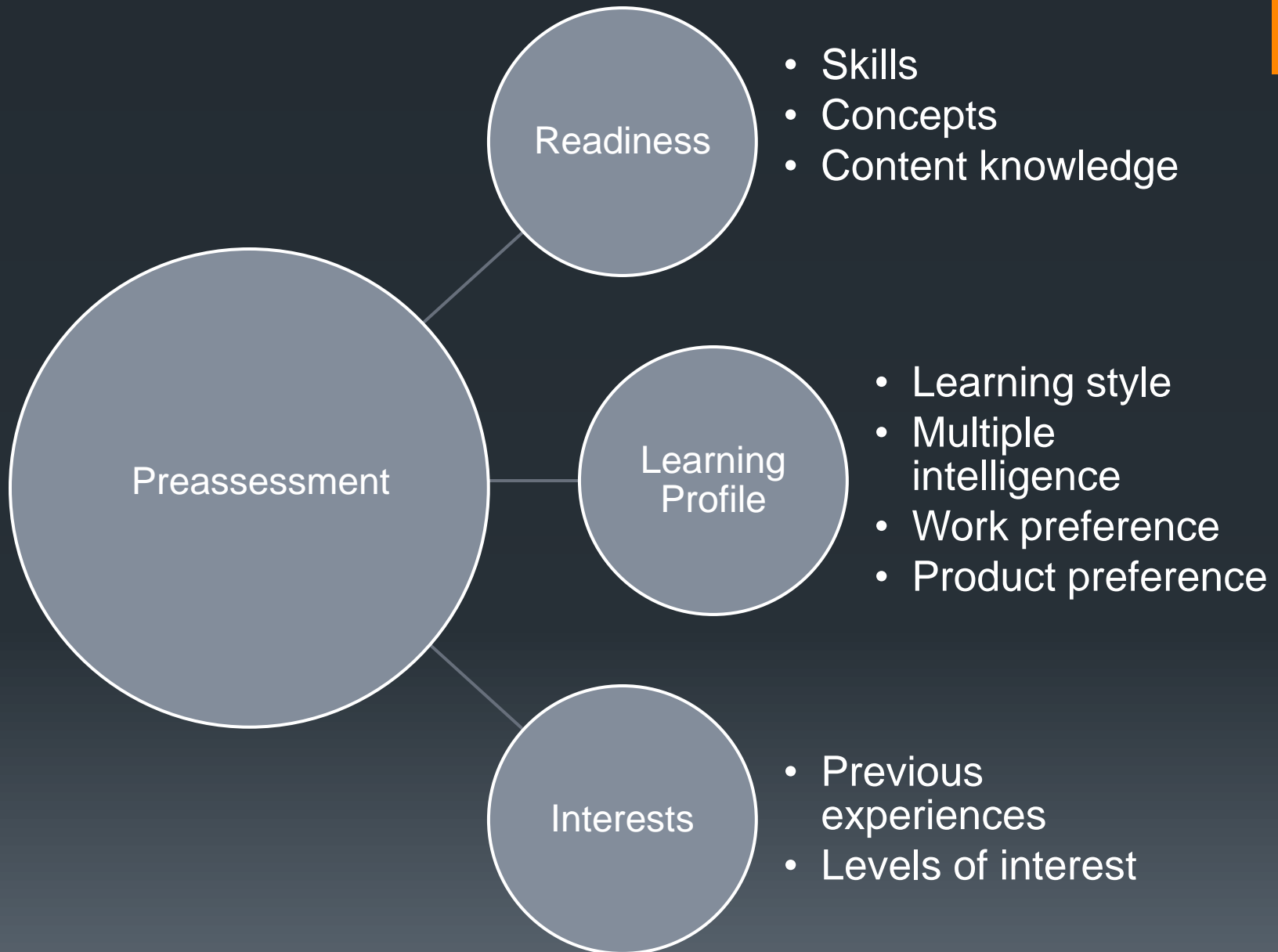
- Who already knows and understands the information and/or can do it? Who needs additional support in order to know, understand, and/or demonstrate the skills?


Differentiation

- What can I do for him, her, or them so they can make continuous progress and extend their learning?



Preassessment is the first step in defensible differentiation.





Record keeping is important!

To be defensible, preassessments should be individual and written. If oral or group preassessments are used, be sure to keep anecdotal records.



Defensible Preassessment Strategies

- End-of-the-previous-unit assessment
- End-of-the-unit assessment



80%

Rule of Thumb



Defensible Preassessment Strategies

- End-of-the-previous-unit assessment
- End-of-the-unit assessment
- K-W-L



Revision...

Original K-W-L

- What do you **know** about ...?
- What do you **want** to know about ...?
- **What** did you **learn** about ...?

Revised K-W-L

- What do you **know** about...?
- What do you **want** to know about...?
- **How** do you want to **learn** about...?

K - W - L CHART

Topic/Unit Civil war

Name _____

What do you **K**now about this topic?

- North and south sides
- main Generals: Robert E. Lee, Ulyses S. Grant
- North had factories, some machinery.
- south had Plantations, good shooters,
- clothing: Keps, over coats, coats, pants, wool socks, boots
- weapons: Swords, revolvers, cannons, muskets.

What do you **W**ant to learn about this topic?

- learn about weaponry
- learn about different soldiers
- learn about Generals lives
- what did they eat?
- where did they sleep?
- How many men per company?

How do you want to **L**earn about this topic?

- group Reenactments
- projects
- field trips
- going to Battlefields
- Read Books about the civil war

K - W - L CHART

Topic/Unit Electricity

Name _____

What do you **K**now about this topic?

The circuits
batteries

What do you **W**ant to learn about this topic?

how it works
why wire is
made of
copper
what's inside
a battery

How do you want to **L**earn about this topic?

by doing
experiments
with wire and
a battery



Defensible Preassessment Strategies

- End-of-the-previous-unit assessment
- End-of-the-unit assessment
- K-W-L
- T-W-H



Revised K-W-L

- What do you **know** about...?
- What do you **want** to know about...?
- **How** do you want to **learn** about...?

T-W-H

- What do you **think** about...?
- What do you **want** to learn about...?
- **How** do you want to learn about...?

T - W - H CHART

Topic/Unit _____

Name _____

What do you **T**hink about this topic?

What do you **W**ant to learn about this topic?

How do you want to learn about this topic?



Practice

- Complete a T-W-H on differentiation.



Defensible Preassessment Strategies

- End-of-the-previous-unit assessment
- End-of-the-unit assessment
- K-W-L
- T-W-H
- Graphic Organizer: Spider

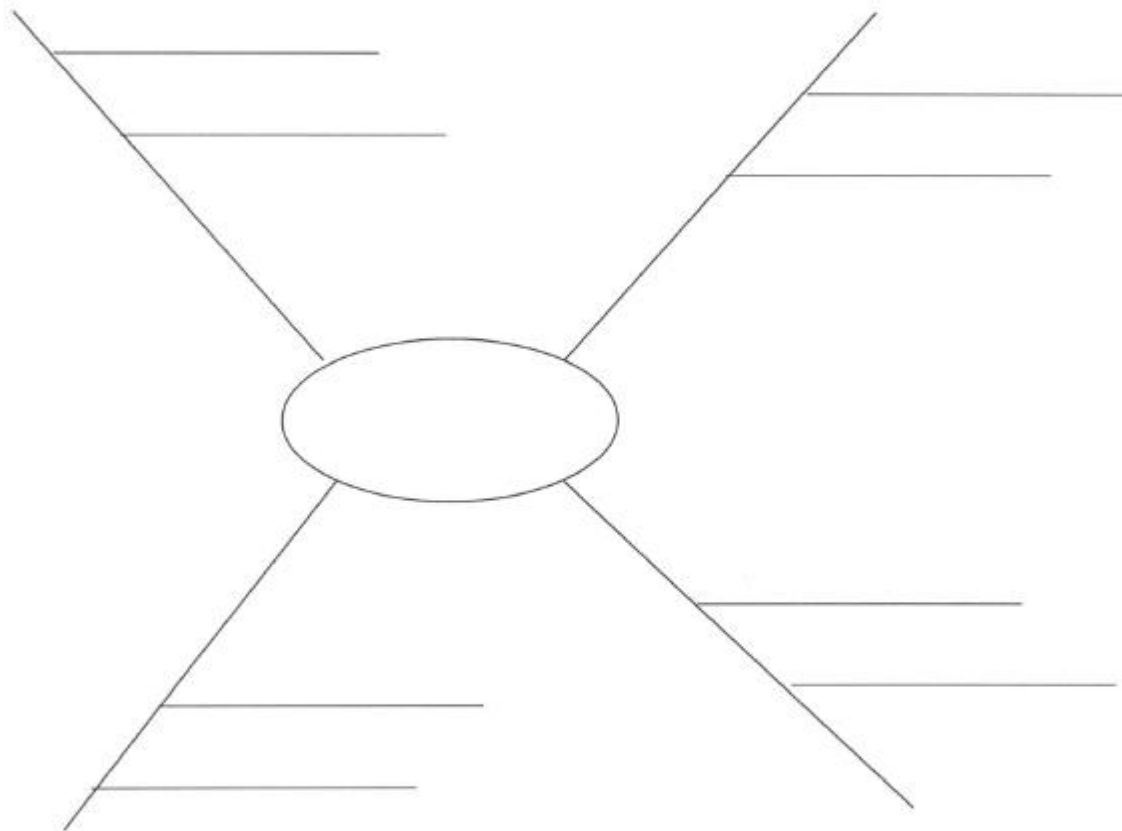
Name _____

Date _____

Class/Subject _____

Teacher _____

Spider Map





I've mapped out the concepts I've already grasped to save you time.



Practice

- Create a Spider on the topic of the differentiation.



Defensible Preassessment Strategies

- End-of-the-previous-unit assessment
- End-of-the-unit assessment
- K-W-L
- T-W-H
- Graphic Organizer: Spider
- Venn Diagram

Chimpanzees

Gorillas

- Animal most like humans.
- Eat plants to get rid of sickness

• Great Apes.

- Mostly live in Africa.
- 20 species of

- all can crawl.
- all endangered.

• Eagle is predator.

• make one baby each time.

- Most neck vertebrae of any mammal!
- slowest animal.
- algae grows on it as camouflage.

Sloths



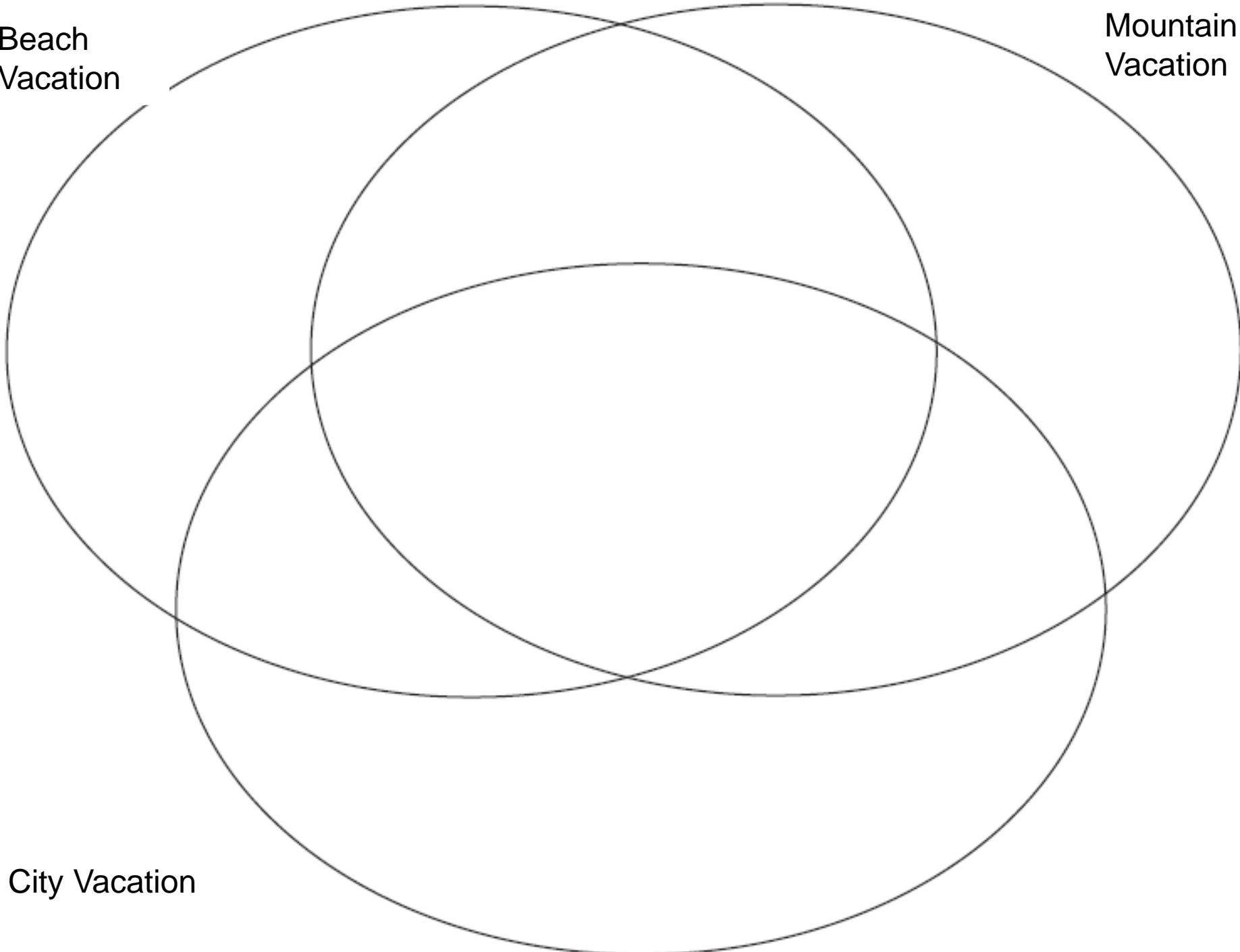
Practice

- Create a Venn Diagram comparing and contrasting vacation destinations.

Beach
Vacation

Mountain
Vacation

City Vacation





Defensible Preassessment Strategies

- End-of-the-previous-unit Assessment
- End-of-the-unit Assessment
- K-W-L
- T-W-H
- Graphic Organizer: Spider
- Venn Diagram
- Interest Inventory

Community Helpers

1. Which community helper do you want to learn about?
2. What do you want to know about this helper?
3. How do you want to learn about the helper?
 - Watch a YouTube video
 - Interview someone
 - Read a book
 - Idea of your own
4. How do you want to show what you have learned?
 - Make a poster
 - Make a Prezi or PowerPoint
 - Role Play
 - Idea of your own



Defensible Preassessment Strategies

- End-of-the-previous-unit Assessment
- End-of-the-unit Assessment
- K-W-L
- T-W-H
- Mind Map
- Graphic Organizer: Spider
- Interest Inventory
- Open-Ended Questions



What do you
know about
differentiation?



Defensible Preassessment Strategies

- End-of-the-previous-unit Assessment
- End-of-the-unit Assessment
- K-W-L
- T-W-H
- Mind Map
- Graphic Organizer: Spider
- Interest Inventory
- Open-Ended Questions
- Five Hardest Questions (Winebrenner, 2001)

Practice

Answer the Five Hardest Questions about differentiation.

How do I determine who is learning what content on what level and in what manner?

How do I grade differentiated work?

How can I manage multiple groups in my classroom?

List examples of differentiation strategies that address readiness.

How can differentiation of assessment be fair?




Idea...

Preteach if you are preassessing content the students have not studied recently.

What do students need to know before taking a preassessment?

- No one expects them to know all of the answers or information.
- The preassessment gives them the opportunity to show what they know as well as what their interests are in the topic to be studied and their preferred ways of knowing.




“A landmark review by Black and Wiliam (1998) found that focused efforts to improve formative assessment provided learning gains greater than one-half standard deviation, which would be equivalent to raising the score of an average student from the 50th percentile to the 85th percentile.”




Remember...

Record keeping is
important.

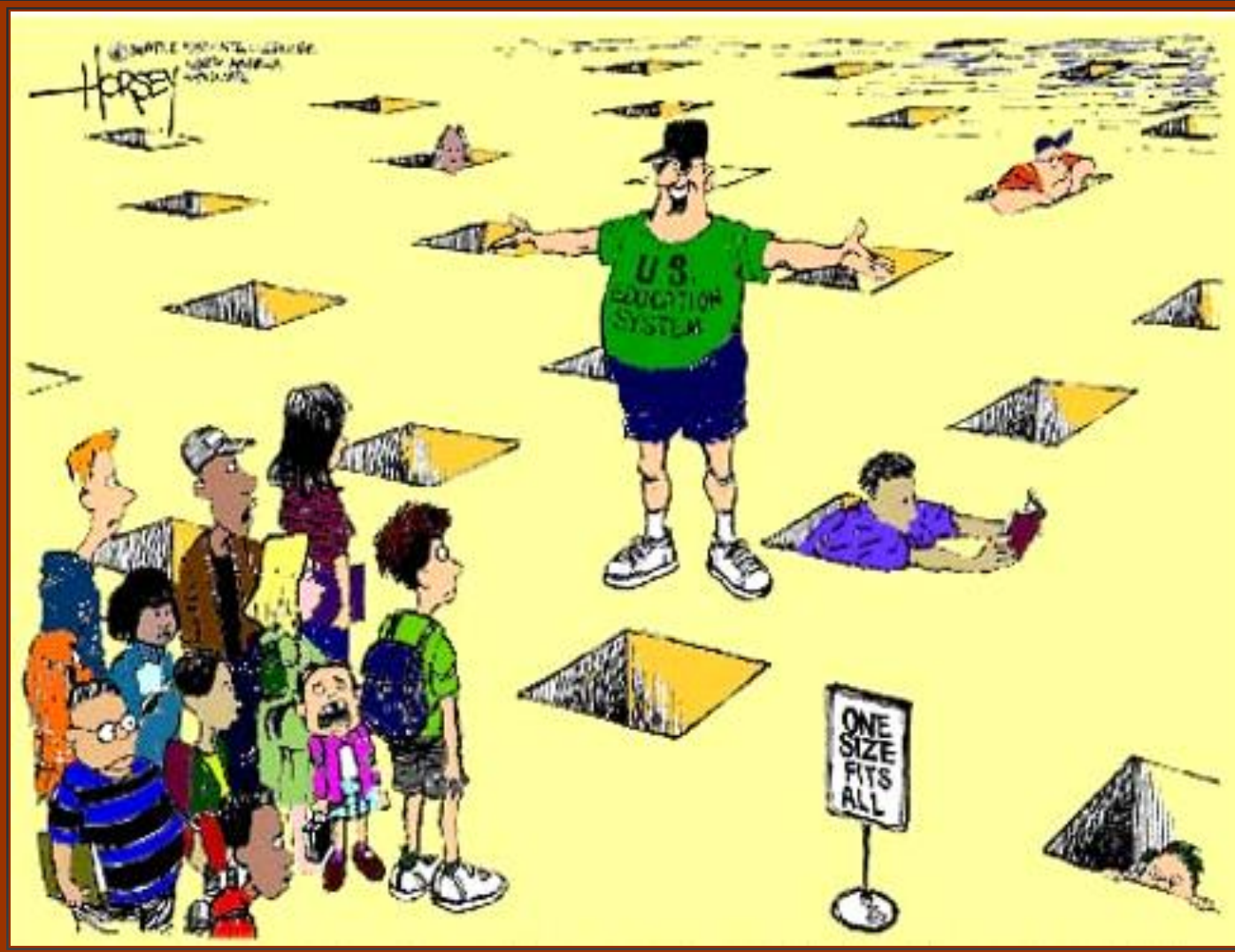


The goal for
differentiation is for
each child to make
continuous progress.



Let it guide your instruction
and student learning.

Once you preassess, use
the preassessment!



**“Summer’s over kids!
Now, all you round pegs get back
into your square holes!”**



Differentiation

Strategy:

Tiered Assignments



What are they?

Tiered Assignments

Tiered assignments




Tiered assignments are **parallel tasks** at varied levels of **complexity, depth, and abstractness** with various degrees of **scaffolding, support, or direction**. Students work on different levels of activities, all with the **same essential understanding or goal** in mind.

Tiered assignments accommodate mainly for differences in **student readiness and performance levels** and allow students to work toward a goal or objective at a level that **builds on their prior knowledge** and **encourages continued growth**.

(Williams, 2002)

What Is Tiering?



“Tiered instruction is like a stairwell providing access within the large building called learning. The bottom story represents learning tasks for students with less readiness and fewer skills. The stairwell continues through enough levels to reach the appropriate challenge for advanced readiness students with very high skills and complex understanding. There isn't always a student working on every stairwell level as students progress through tiers of learning at different paces. Also, within each tier, there simultaneously can be multiple small-group activities presenting different ways to learn. Some floors in the stairwell even have multiple stairways as students access higher learning levels differently.”

(Kingore, 2006, p. 5)

How Does Tiering Benefit Students?

Tomlinson (1995) offers the following guidelines for implementing tiered assignments:

- Be sure the task is focused on a key concept.
- Use a variety of resource materials at differing levels of complexity and associated with different learning modes.
- Adjust the task by complexity, abstractness, number of steps, concreteness, and independence to ensure appropriate challenge.
- Be certain there are clear criteria for quality and success.



Tiering Strategy: Bloom Chart



Quick refresher...

Old

- Evaluation
- Synthesis
- Analysis
- Application
- Comprehension
- Knowledge

New

- Create
- Evaluate
- Analyze
- Apply
- Understand
- Remember



Bloom Preassessment

Quick check...

Bloom Preassessment

Write the level of Bloom's Taxonomy for each learning experience


R – remember U – understand AP – apply
AN – analyze E – evaluate C – create

- _____ 1. Create a brochure explaining the president's duties and the duties of the cabinet.
- _____ 2. Design and construct a poster defining quadrilaterals. Include at least five examples.
- _____ 3. Develop an artistic mobile that contains 10 facts about the chemical element of your choice.
- _____ 4. Dressing as a character in the story, describe yourself and the role you play in the story to the class.
- _____ 5. Using an online tool, design an avatar that will carefully explain the Pythagorean Theorem. Be sure to include visuals as well.
- _____ 6. Using an online collage/tag cloud generator, create a collage or tag cloud that details the elements of art.
- _____ 7. Write song lyrics that delineate the three states of matter and their molecular structure.
- _____ 8. Create a flowchart that outlines the steps a court case must take in order to reach the federal Supreme Court.
- _____ 9. Make a labeled diagram of the human heart. Be sure to include all of the vocabulary words from the unit.
- _____ 10. Write and illustrate a children's book explaining the parts of speech. Books will be presented to the third grade class.

How can level up/provide challenge?

Dressing as a character in the story, describe yourself and the role you play in the story to the class.

- Dressing as a character in the story, explain why you acted the way you did in a pivotal point in the story.
- Dressing as a character in the story, imagine that you acted the opposite way you did in a pivotal point in the story. Predict how this would have changed the outcome.
- Dressing as a character in the story, analyze the relationship you had with two others characters. Explain why your relationships were the way they were.



Be sure to examine
each task through a
Bloom's lens. Don't
be fooled by word
choice.

What is a Bloom Chart?

- Same topic, different process (verb), content (basic or complex), and/or product choices
- Learning experiences match what students know and are able to do
- Match encourages continued progress

Bloom Chart


	PROCESS	CONTENT	PRODUCT
CREATE			
EVALUATE			
ANALYZE			
APPLY			
UNDERSTAND			
REMEMBER			

Members of a Community (Grade 1)

- **Standards Addressed:** National Council for Social Studies curriculum standard/theme: People, Places, and Environment.
- **Assignment:** In the primary grade levels, one of the key concepts in social studies is community. Students can examine their own local community and the roles of various community members and helpers. The basic principles of the national history standards for grades K-4 state that “to bring history alive, an important part of children’s historical studies should be centered in people – the history of families and of people, ordinary and extraordinary, who have lived in children’s own community, state, nation, and the world” (National Center for History in the Schools, n.d.). This first-grade-level Bloom chart (see Figure 4.3) addresses various roles of members and workers in a community. For both the first- and fourth-grade examples (see p. 56 for fourth grade), before giving the tasks to students, teachers should separate the Bloom chart into handout strips to level the tasks. For example, dividing the chart into three sections would allow two choices of tasks for students at three different levels of cognitive complexity: remember/understand, apply/analyze, and evaluate/create.

	PROCESS	CONTENT	PRODUCT
CREATE	<i>Invent</i>	<i>Helpers</i>	<i>Skit or Paragraph</i>
	<i>Think about a new community helper. What would that person do to help?</i>		
EVALUATE	<i>Judge</i>	<i>Helpers</i>	<i>Oral Presentation or Series of Illustrations</i>
	<i>Review the things that three community helpers do and decide which community helper is most important to your school. Explain your decision.</i>		
ANALYZE	<i>Compare</i>	<i>Helpers</i>	<i>Venn Diagram or Short Story</i>
	<i>Show the differences and similarities between two community helpers.</i>		
APPLY	<i>Show</i>	<i>Helpers</i>	<i>Collage or Skit</i>
	<i>Describe how your town's community helpers work together.</i>		
UNDERSTAND	<i>Describe</i>	<i>Helpers</i>	<i>Dictionary or Chart</i>
	<i>Describe the job that each community helper does in your town.</i>		
REMEMBER	<i>List</i>	<i>Helpers</i>	<i>Poster or Illustration</i>
	<i>List the community helpers in your town.</i>		

Figure 4.3. Grade 1: Bloom chart—Helpers in the Community. Used with permission by Julia L. Roberts and Tracy Ford Inman, Western Kentucky University.



Mathematics: Numbers and Operations – Fractions, Grade 3

- Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.
- Understand a fraction as a number on the number line; represent fractions on a number line diagram.
- Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

Fractions

	PROCESS	CONTENT	PRODUCT
CREATE	<i>Create</i>	<i>Fractions</i>	<i>Open Product/ Your Choice</i>
	<i>Create examples of an interesting, unusual way to use fractions or to teach someone else about fractions. Select the product to present your ideas.</i>		
EVALUATE	<i>Justify</i>	<i>Fractions</i>	<i>Persuasive Essay or Debate</i>
	<i>Justify learning about fractions in a persuasive essay or debate.</i>		
ANALYZE	<i>Compare</i>	<i>Fractions</i>	<i>Venn Diagram or Poster</i>
	<i>Compare fractions and decimals on a Venn diagram or poster.</i>		
APPLY	<i>Organize</i>	<i>Fractions</i>	<i>Numberline</i>
	<i>Organize fractions on a numberline.</i>		
UNDERSTAND	<i>Explain</i>	<i>Fractions</i>	<i>Discussion or Role Play</i>
	<i>Explain fractions in a discussion or a role play.</i>		
REMEMBER	<i>Identify</i>	<i>Fractions</i>	<i>Chart or Pictures</i>
	<i>Identify fractions on a chart or with pictures.</i>		

Note. From *Enrichment: An Array of Opportunities* (p. 24), by J. L. Roberts, 2005, Waco, TX: Prufrock Press. Copyright 2005 by Prufrock Press. Adapted with permission.



Products are important!

- To ensure high quality, authentic products, make sure that the student has a rubric that guides her in the development of the product and that the teacher has a rubric that guides the assessment.



In Differentiating Process

When Do I Use It?



Standards-Based Instruction:
NGSS 2. *Structure and
Properties of Matter*



Lesson Hook

- Read and discuss *Solids, Liquids, and Gases* (Garrett, 2005) with basic level learners to investigate the properties of matter. Read and discuss *What Is the World Made of? All About Solids, Liquids, and Gases* (Zoebfeld & Meisel, 1998) with students who need a higher level of complexity.

Properties of Matter

	PROCESS	CONTENT	PRODUCT
CREATE	Create	Properties of Matter	Drawing
	Create a toy that uses at least two states of matter.		
EVALUATE	Justify	Properties of Matter	Oral presentation
	Decide which state of matter would be best for filling a balloon or washing your dog, Tell why.		
ANALYZE	Organize	Properties of Matter	Chart
	Classify objects in the classroom into gas, liquid, or solid groups.		
APPLY	Show	Properties of Matter	Collage
	Show examples of each state of matter using magazine pictures.		
UNDERSTAND	Define	Properties of Matter	Flash Cards
	Explain each of the three states of matter and illustrate each.		
REMEMBER	List	Properties of Matter	Poster
	List the three states of matter and give an example of each.		

Lesson Title: Water, Water Everywhere!

Grade Level: 2

Standards:

- Obtain and communicate information that water exists in different forms within natural landscapes and determines the variety of life forms that can live there.
- Measure and compare the physical properties of objects.

Steps:

1. Have students complete the appropriate sections of the Bloom Chart, based on their ability and readiness levels.

Bloom Chart: Physical Properties of Water

	Process	Content	Product
Create	Predict	Physical Properties of Water	Story
	Predict what would happen to the environment if one physical property of water did not exist.		
Evaluate	Justify	Physical Properties of Water	Speech
	Justify which physical property of water is the most essential to human and animal life.		
Analyze	Compare/ Contrast	Physical Properties of Water	Venn Diagram
	Compare/contrast the physical properties of water in a Venn diagram.		
Apply	Determine	Physical Properties of Water	Travel Brochure
	Determine where in your city or state that physical properties of water could be found in a travel brochure.		
Understand	Explain	Physical Properties of Water	PowerPoint Presentation
	Explain physical properties of water in a PowerPoint presentation.		
Remember	Identify	Physical Properties of Water	Chart or Pictures
	Identify physical properties of water in a chart or with pictures.		

Figure 22. Water, Water Everywhere! lesson.

Figure 4.6 Bloom Chart: MONEY

	PROCESS	CONTENT	PRODUCT
CREATE	<i>Compile</i>	<i>Money</i>	<i>Timeline with Explanation</i>
	<i>Compile a timeline displaying the "worth" of a U.S. dollar during each decade from 1950-2000 as it relates to the cost/quantity of milk, sugar, and gasoline. Predict the future pattern.</i>		
EVALUATE	<i>Critique</i>	<i>Money</i>	<i>Speech or Essay</i>
	<i>Critique the use of the United States money system as it compares to a system of barter or trade. Share your findings of support or disapproval in a speech or essay.</i>		
ANALYZE	<i>Analyze</i>	<i>Money</i>	<i>Chart</i>
	<i>Analyze various ways coins can be translated into dollar amounts and record your responses on a chart.</i>		
APPLY	<i>Construct</i>	<i>Money</i>	<i>Story Performance</i>
	<i>Create situations/problems that require change for \$1, \$5, and \$10.</i>		
UNDERSTAND	<i>Describe</i>	<i>Money</i>	<i>Discussion or Presentation</i>
	<i>Describe the four major U.S. coins to the class to see if they can take turns guessing the coin you describe.</i>		
REMEMBER	<i>List</i>	<i>Money</i>	<i>Poster</i>
	<i>List the four major U.S. coins and tell how much they are worth on a poster.</i>		

Adapted from Nora Beth Carroll, elementary teacher.

Title: Patterns, Patterns, Patterns!

Standard:

1. Begin by showing photos with examples of patterns: images of sand dunes, pictures of columns on a Greek temple or a local courthouse building, football field, etc. Have students share what they notice about these pictures.
2. Introduce the concept of repeating patterns and model 2-3 examples. Discuss why patterns might be important in understanding mathematics and the world around us.
3. Use a short formative assessment to evaluate student understanding. Based on a quick assessment of their responses, organize small groups for tiered tasks.

Patterns: Task 1 – Use the math blocks to create repeating patterns. Have a partner identify and continue the pattern. Trick: Try to design a pattern to stump your partner. (for students who need more practice recognizing and creating repeating patterns in order to master this standard)

Patterns: Task 2 – Design a holiday wrapping paper with repeating patterns. Present your paper design to your group and have them identify the patterns. (for students who have mastered the knowledge/understanding level on this standard and are ready to apply that knowledge)

Patterns: Task 3 – Design a drawing of the front of a new mall building that has repeating patterns (for students who are ready for more complex thinking regarding patterns)

Kirchner, J. (2013). A sampling of differentiation strategies. In J. L. Roberts & T. F. Inman's *Teacher's survival guide: Differentiating instruction in the elementary classroom*. Waco, TX: Prufrock Press.

Bloom Chart: NUTRITION

	PROCESS	CONTENT	PRODUCT
CREATE	<i>Create</i>	<i>Nutrition</i>	<i>Recipe or Ad</i>
	<i>Create your own nutritious recipe or ad to "sell" nutrition to children.</i>		
EVALUATE	<i>Take a stance or Defend</i>	<i>Nutrition</i>	<i>Editorial or Debate</i>
	<i>Take a stance against or defend "fast foods" in an editorial or debate.</i>		
ANALYZE	<i>Compare</i>	<i>Nutrition</i>	<i>Report or Series of Illustrations</i>
	<i>Compare examples of good and bad nutrition in snacks through a report or series of illustrations.</i>		
APPLY	<i>Plan</i>	<i>Nutrition</i>	<i>Weekend of Menus</i>
	<i>Plan a weekend of menus, using the food pyramid.</i>		
UNDERSTAND	<i>Explain</i>	<i>Nutrition</i>	<i>Skit or Poem</i>
	<i>Explain good nutrition to a group of children through a skit or poem.</i>		
REMEMBER	<i>Define</i>	<i>Nutrition</i>	<i>Poster or Rap</i>
	<i>Define the elements of nutrition in the food pyramid with a poster or rap.</i>		

DATA DISPLAYS

	PROCESS	CONTENT	PRODUCT
CREATE	<i>Create</i>	<i>Data Displays</i>	<i>Model</i>
	<i>Create a three-dimensional model for displaying a set of data.</i>		
EVALUATE	<i>Justify/Criticize</i>	<i>Data Displays</i>	<i>Editorial or Speech</i>
	<i>Justify or criticize the media's use of a specific data display to sway public opinion.</i>		
ANALYZE	<i>Compare</i>	<i>Data Displays</i>	<i>Paragraph(s) or Venn Diagram</i>
	<i>Compare the appropriate application of two different data displays</i>		
APPLY	<i>Use</i>	<i>Data Displays</i>	<i>Chart or Graph</i>
	<i>Use an appropriate type of data display to represent a set of data.</i>		
UNDERSTAND	<i>Explain</i>	<i>Data Displays</i>	<i>Discussion or Skit</i>
	<i>Explain to a classmate the key features of two different data displays.</i>		
REMEMBER	<i>Identify</i>	<i>Data Displays</i>	<i>Poster</i>
	<i>Identify at least four types of data displays in newspapers/magazines and present as a poster.</i>		

Note: Adapted with permission by David Baxter, elementary curriculum coordinator.



Menus and Think-Tac-Toes

When Do I Use It?



Language Arts

*Reading Literature Standard 1.3:
Describe characters, settings, and
major events in a story, using key
details. Students are to select one
activity from each row to complete.*

Challenging (lower levels)

Settings	Draw pictures of the setting.	Make a model of the main setting.
Key Events	Create a timeline listing the key events in the story.	Tell the key events in the story to another person in the room or record it.
Characters	Dress as a character in the story and describe yourself to the class.	Pretend you are a character in the story. Write journal pages that describe what is happening and how you feel about it.

Extra Challenging (higher levels)

Settings	Describe in writing what might happen to the story if the setting were different such as it took place in a different time, country, etc.	Make a model of the setting as it would look 100 years from the time in the story.
Key Events	Imagine a different ending to the story. Tell that ending to a classmate or record it.	What is the most important part of the story? Write a letter to the author explaining why you think it is the most important part.
Characters	Compare and contrast a character in the story to you. What do you have in common? What differs? Put this information in a Venn diagram.	Draw a picture of the main character. Try to include the character's personality in the drawing.



Cubes

When Do I Use It?

(More challenging)
Charlotte's Web
Cube
Roll the cube
and complete the
activity.

Character:

Compare the major characters to those in another book you have read using a T chart.

Setting:

Draw sketches of both Fern's farm and where you live. Use details from the book to show similarities and differences.

Theme:

In a short paper, argue for or against the importance of friendship as the main theme. Use evidence from the book.

Conflict:

Draw a picture that illustrates two examples of conflict in the story. Compare and contrast the conflicts.

Plot:

Create a plot diagram that sorts story events into rising action, climax, falling action, and resolution.

Descriptive Writing:

Choose a short scene from the book. Rewrite it using more descriptive details. Explain why yours is better!

Reading Literature.
Determine a theme of a story, drama, or poem from details in the text; summarize the text.

Reading Literature .
Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).

Reading Literature .
Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.

(Less challenging)

Charlotte's Web Cube

Roll the cube
and complete the
activity.

Character:

In a paragraph,
describe two major
characters without
telling their names.
Let your group guess.

Setting:

Choose five words
that describe the
setting. Illustrate with
a picture.

Theme:

What do you think is
the theme of the
book? Why? Explain
in a short
presentation.

Conflict:

In a mock interview,
describe a conflict that
occurred in the book.
Explain how it was
resolved.

Plot:

Prepare a short
presentation
explaining what you
think was the climax
of the story and why.

Descriptive Writing:

Locate a chapter that
had good descriptive
details. Explain to
your group why this
made the story
interesting.

Reading Literature.

Determine a theme of a story, drama, or poem from details in the text; summarize the text.

Reading Literature.

Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).

Reading Literature.

Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.



Centers

When Do I Use It?



Science

- *NSES K-4 Science in Personal and Social Perspectives Content Standard F: Personal Health; History and the Nature of Science Content Standard G: Science as a human endeavor*



Lesson Hook

- Show the students a stethoscope and ask, “How does a stethoscope make sounds louder?” Next, record the student responses on chart paper. Read the article “A Doctor’s Quest” by Gloria Wagner (2002) to students. Ask them to make a stethoscope of their own using a cardboard tube. Students should listen to partner’s heartbeats, counting the number of beats over a 30-second period. Partners then run in place and the process repeats.

	PROCESS	CONTENT	PRODUCT
CREATE	<i>Create</i>	<i>The Human Heart</i>	<i>Illustrated Storybook</i>
	<i>Create a simple apparatus that allows you to detect a human heartbeat.</i>		
EVALUATE	<i>Experiment</i>	<i>The Human Heart</i>	<i>Laboratory Report</i>
	<i>Hypothesize on which activity makes your heart beat faster: 30 seconds of running, 30 seconds of hopping, or 30 seconds of jumping jacks. Experiment to support your hypothesis, record your data, and write the results in a laboratory report.</i>		
ANALYZE	<i>Research</i>	<i>The Human Heart</i>	<i>Newspaper Article</i>
	<i>Research two diseases that affect the human heart. Write a newspaper article that compares the two diseases.</i>		
APPLY	<i>Determine</i>	<i>The Human Heart</i>	<i>Diagram</i>
	<i>Make a labeled diagram of the human heart to trace the flow of blood through the heart and lungs.</i>		
UNDERSTAND	<i>Illustrate</i>	<i>The Human Heart</i>	<i>Drawing</i>
	<i>In your own words, describe the function of the four chambers of the heart.</i>		
REMEMBER	<i>List</i>	<i>The Human Heart</i>	<i>Poster</i>
	<i>Color and label the parts of a diagram of the heart.</i>		



Standards-Based Instruction: Math

- *Common Core Standard: First Grade Measurement and Data*



Mind Your Measurement: Beginning

- Provide a laminated sheet with three objects drawn on it. have students measure all of the objects using a paper clip. They should then answer the question “How many paper clip lengths does it take to find each object length?” Students should record their findings in a chart and create a bar graph.



Mind Your Measurement: Practicing

- Provide three different objects of varying lengths. Have students measure the lengths of two objects using the third and shortest object. They should then use a Mathematical Observation Journal to record their findings. They should then answer the questions “Which is longer of the two? What are other observations you can make from this activity? Choose three other objects to measure. How do these compare?” Finally, students give a presentation about their findings.



Mind Your Measurement: Stretching

- Using two different objects for measurement, students should make a prediction about many of each of the measurement objects it will take to measure three different items of their choice. Have students organize their data into a chart, then write an acceptance speech for winning the First-Grade Measurement Prize that highlights their findings.



Math

- Ratios and Proportional Relationships

Ratios and Proportional Relationships: Beginning

Provide two baskets to draw a slip of paper from at this center. Have one basket with items to measure and the other basket providing the scale ratio. Have students use a proportion to solve the missing dimensions for the drawing, as in this example:

If you select a picture of a wading pool that measures 6 ft by 10 ft and select a scale that is 1 cm to 2 ft, picture to actual, what would the dimensions for the scale object be? The 6 ft would be 3 cm and the 10 ft would be 5 cm.

$$1 \text{ cm} / 2 \text{ ft} = x \text{ cm} / 6 \text{ ft}$$

$$x = 3 \text{ ft}$$

Through the role of tutor, students can present their findings in a PhotoPeach presentation with questions developed from the slips they drew from the baskets (Sanders, 2011).

Ratios and Proportional Relationships: Practicing

- Give students this scenario: “You are the principal of a school and need to tell teachers the measurements of the school. Given a blueprint of the school, find the actual measurements using the ratio provided on the drawing.” (Students are provided with a school blueprint that gives the scale for the measurements represented on the drawing – the actual measurements are not included.) Students should then find the measurements of places of their choice to be able to share with their teachers and classmates. They must design a couple of choices for an addition to the school that addresses a need that they believe is important for them and their classmates. Then, they must set up a debate about the need for one of these additions and incorporate how the dimensions were calculated from the blueprint scale.

Ratios and Proportional Relationships: Stretching



- Give students this scenario: “The floor plan for the school has been lost. Many people visit your school because of its wonderful students and teachers. You are the chairperson for the welcoming committee to help make sure people know the dimensions to certain areas of the school given the accurate floor plan.” Have students measure a portion of the school. Provide paper and supplies for them to draw a floor plan of the location. They should determine the scale used for their drawing and show how this scale is accurately reflected in the drawing. Then, have students write a speech to give to the school board and their parents that discusses how they believe the accuracy of the floor plan can be trusted and any improvements to the school that might be considered. Students can design a Prezi to accompany their speech that displays their accuracy and thinking process in coming up with the floor plan.



Optional Learning Experience

When Do I Use It?



National Standards for History, Grades K-4

- *Topic 3: The History of the United States: Democratic Principles and Values and the Peoples from Many Cultures Who Contributed to Its Cultural, Economic and Political Heritage*
 - *Standard 4 : How Democratic Values Came to Be, and How They Have Been Exemplified by People, Events, and Symbols*

Symbols

Design a flag containing five symbols that represent you and your family.

Collect pictures of different types of U. S. currency (\$1, \$5, \$10). Design a poster showing their value and explaining the pictures on the bills.

Songs

Design a children's book with pictures and words to illustrate the song "America the Beautiful."

Write a song that describes people, places, and things that you feel make America beautiful.

Places

Design a storybook about three significant places/sites in the United States.

Using a map of the United States, label ten national parks and plot a route to visit these parks.



CREATE

Based on your understanding of social insects, create a social insect that would fit into an ecological niche of your choice. Select a product that will allow you to explain about your new insect and why it fits into the specific environment.

EVALUATE

Using criteria that you establish, judge which social insect is best suited for survival along side human habitation. Share your point of view in a scientific paper or an editorial.

ANALYZE

Compare and contrast two or three examples of social insects. Show your evidence with a Venn diagram (see Chapter 5 for models) or an essay with illustrations.

APPLY

Identify three examples of social insects and show how each fits the concept of social insect. Your product can be a exhibit with explanations or a photo essay.

REMEMBER/UNDERSTAND

Identify the concept of social insects in terms of physical structure and behaviors. Produce a poster or a skit to demonstrate what you have learned.





Remember

- The Bloom Chart is the teacher's planning sheet.

CHINA – THE WARRIORS OF XIAN



CREATE:

Create burial customs that include art and artifacts for another culture. You may select the product that will let you express your ideas.

EVALUATE:

Defend your judgment in response to the following statement in a debate or an editorial: burial sites are sacred and should remain untouched.

ANALYZE:

Compare and contrast the burial at Xian with the burial of another ruler in a different culture producing a Venn diagram or essay.

APPLY:

Apply what you know about the burial customs of emperors in China that led to the burial site at Xian in an illustrated essay or a model with explanation.

REMEMBER/UNDERSTAND:

Describe the warriors of Xian and their story in a dialogue or an illustrated story.

生日快乐





Language Arts

- *Literature Standard 5: Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.*

	PROCESS	CONTENT	PRODUCT
CREATE	Predict	Poems, Drama, and Prose	Choice of Product
	Predict what would happen to its literary value if it were rewritten in another genre.		
EVALUATE	Justify	Poems, Drama, and Prose	Letter
	Choose one genre and argue in a letter to the donor that it is the most worthy of awards.		
ANALYZE	Compare/contrast	Poems, Drama, and Prose	Three-circle Venn
	Create a three-circle Venn diagram that compares and contrasts poetry, drama, and prose.		
APPLY	Classify	Poems, Drama, and Prose	Graphic Organizer
	Using a graphic organizer of your choice, list the structural elements for poetry, drama, and prose.		
UNDERSTAND	Explain	Poems, Drama, and Prose	Avatar
	Use an online tool to develop an avatar that will explain the major differences between poetry, drama, and prose.		
REMEMBER	Describe	Poems, Drama, and Prose	Word Collage/Tag Cloud
	Use an online collage/tag cloud generator to create a collage or tag cloud of poetry, drama, and prose.		

Figure 3.7. Bloom Chart: Poems, Drama, and Prose

Challenging (lower levels)

Exploring Genre

Select one of the following three options to complete. Be sure to let the rubric guide the development of your product.

- Using a graphic organizer of your choice, list the structural elements for poems, drama, and prose.
- Use an online collage/tag cloud generator (e.g., <http://www.tagxedo.com>) to create a word collage/tag cloud for poetry, drama, and prose. Be sure to include structural elements (e.g., verse, rhythm, meter, casts of characters, settings, descriptions, dialogue, stage directions, etc.)
- Use an online tool to develop an avatar (e.g., www.xtranormal.com) that will explain the major differences between poems, drama, and prose. Be sure to include structural elements (e.g., verse, rhythm, meter, casts of characters, settings, descriptions, dialogue, stage directions, etc.).

Extra Challenging (higher levels)

Exploring Genre

Select one of the following three options to complete. Be sure to let the rubric guide the development of your product.

- Create a three-circle Venn diagram that compares and contrasts poetry, drama, and prose. Be sure to include structural elements (e.g., verse, rhythm, meter, casts of characters, settings, descriptions, dialogue, stage directions, etc.)
- A \$100,000 literary award is being created to recognize the most outstanding type of literature. The donor must select one genre: poems, drama, or prose. Choose one genre and argue in a letter to the donor that it is the most worthy of the three for awards. Be sure to include structural elements in your reasoning.
- Select a poem, play, or prose piece from what we've studied this year. Predict what would happen to its literary value if it were rewritten in another genre. First, rewrite a portion of the piece into the new genre. Next, describe what impact the new genre would have on the literary value and popularity of the piece. Be sure to include structural elements in your discussion. Choose a product to present your ideas.

How Do I Use The Strategy?

- Ask yourself: What is it that I want everyone to know, understand, or be able to do when they walk out the door?
- Create tasks
- Assign options
- Distribute rubrics



Create a Bloom Chart. Consider how you will use it to differentiate in your classroom.

Activity

Learning Process Verbs

Create

predict hypothesize design construct
create compose

Evaluate

interpret judge justify criticize
verify conclude

Analyze

compare contrast take apart specify dissect
deduce determine differentiate distinguish

Apply

organize group collect apply order classify
model use construct relate

Understand

explain translate restate connect conclude
summarize describe show paraphrase

Remember


list observe describe uncover recognize
tell recall

Advertisement (print)
Advertisement (radio)
Advertisement (television)
Application
Article
Audiotape
Biography
Blog
Blueprint
Book
Book Cover
Brochure
Bulletin Board
Cartoon
Case Study
Chart
Choral Reading
Collage
Collection
Column
Commercial
Computer Graphic
Computer Program
Costume
Creative Writing
Dance
Debate
Demonstration
Diagram
Dialogue
Diary
Diorama
Display
Document-Based Question
Documentary
Dramatic Presentation
Drawing
Editorial
Essay
Exhibit / Display
Experiment
Evaluation Form

Feature Article
Film
Game
Graph
Graphic Organizer
Greeting Card
Illustrated Story
Illustration
Interview (live)
Interview (recorded)
Interview (written)
Invention
Journal
Lesson
Letter (business)
Letter (friendly)
Letter to Editor
Mask
Matrix
Mathematical Formula
Mentorship
Mime
Mock Court
Mock Trial (attorney)
Mock Trial (defendant)
Mock Trial (judge)
Mock Trial (plaintiff)
Model
Monologue
Movie
Mural
Museum
Museum Exhibit
Musical
Newscast
Newsletter
Newspaper Story
Open Response
Oral History
Oral Report
Outline
Painting
Peer Evaluation
Pamphlet

Photo
Photo Essay
Picture
Plan
Play
Podcast
Poem
Political Cartoon
Poster
PowerPoint
Presentation
Project
Public Service Announcement (radio)
Public Service Announcement (television)
Puppet
Puppet Show
Questionnaire
Research Report
Review
Science Fair Project
Sculpture
Scrapbook
Script
Service Learning Project
Simulation
Skit
Song
Speech (oral)
Speech (written)
Story
Story Telling
Survey
Technical Report
Technical Writing
Timeline
Transparency
Venn Diagram
Video
Video Game
Volunteer Activity
Webpage
Wiki
Written Report

Product List



How might you use the Bloom Chart ?



Content, Process, and Product Differentiation

Sample Differentiated Learning Experience



Reading Literature Standard 5.2

Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.

Exploration of Theme Preassessment

Content:

1. What kind of literature do you enjoy reading? (This could be genre, subject matter, or author.)
2. Do you prefer to read stories or plays?

Process:

3. On the back of the paper, define theme. Then, explain a theme in one of the works you've read in the past year. Be sure to give examples from the work to support the theme.
4. On the back of the paper, summarize a fairy tale of your choice.

Product:

5. Circle those products that you have created before.
6. Put a star beside those products that interest you that you have not created before.

Diorama	Mask	Model	Sculpture
Debate	Interview	Monologue	Oral Presentation
Computer Graphic	Movie	Podcast	PowerPoint
Cartoon	Collage	Pamphlet	Poster
Diary	Essay	Letter	Written Interview

Figure 3.12. Preassessment.

Content

- Student selection of text on appropriate level

Process

- Teacher distribution of appropriate assignment sheet

Product

- Student choice of product in open-ended task options

Exploration of Theme

Each of you has selected a play or story on your reading level that interests you. Once the teacher has approved your choice, read the piece, keeping theme (i.e., the author's main message about life) in mind. There are two parts to this assignment: (1) a summary of the work, and (2) a project selected from the three options below.

Summary

A friend tells you that he is thinking about reading the work you just read. Without spoiling the ending for him, summarize it for him. You can e-mail him (write the summary as an e-mail and turn it in) or tell him about it (tape record what you would say or say it in person to the teacher). Be sure to keep it brief.

Project

Select a project from one of the three choices below. Be sure to get a rubric from the teacher once you have selected your product.

- Determine a main theme of the work you've read. In a product of your choice, collect sample passages from the piece that supports this theme. Be sure to include passages that show the characters' responses to the challenges they meet.
- Describe a theme of the work by focusing on one or two events that helped you understand the author's main message about life. Explain these events including how they relate to the theme in a product of your choice.
- How does the theme of the work relate to your life? Compare or contrast it to your life using specific information from the work and your life in a product of your choice.

Figure 3.14. Theme: Challenging

Exploration of Theme

Each of you has selected a play or story on your reading level that interests you. Once the teacher has approved your choice, read the piece, keeping theme (i.e., the author's main message about life) in mind. There are two parts to this assignment: (1) a summary of the work, and (2) a project selected from the three options below.

Summary


Amazon.com has hired you to write a short summary of the piece you selected to be posted on its web page. In no more than 150 words, summarize the work in such a way that people will want to read it—they won't want to know the ending! In preparation, read several book blurbs from the website.

Project

Select a project from one of the three choices below. Be sure to get a rubric from the teacher once you have selected your product.

- Choose a piece of literature you have read in the last year that had a similar theme to the play or story you've selected to read for this assignment. Being sure to include the characters' responses to the challenges, compare the themes of the two works in a product of your choice.
- Place yourself into the work you've read. How would you have reacted to the events and other characters? What lessons would you have learned? How would you have responded to the challenges in the piece? In a product of your choice, predict your personal responses and reactions and describe the impact those would have on the theme.
- Determine two themes for the piece. Which of the two teach a greater life lesson? In a product of your choice, explore the two themes justifying the importance of one over the other. Be sure to include textual detail including the characters' responses to challenges.

Figure 3.13. Theme: Extra challenging.



Remember: You can't teach
something to someone if the
person already knows it!

The goal is continuous progress.



To Differentiate or Not to Differentiate?



Why do teachers not differentiate?

- Lack of time
- Limited resources
- Management issues
- Lack of training both in learning strategies and classroom management
- No role modeling
- Nation- or state-wide emphasis on content mastery for state assessments



Why do teachers differentiate?

- Children are different
- Continuous progress is the reason to go to school
- Motivates learners
- Appropriately challenging material encourages development of life skills (e.g., organizational skills, time-management, risk-taking, sense of responsibility, work ethic, etc.)
- Develops metacognition and autonomous learning



Note the focus behind
the reasons....

- Reasons teachers differentiate are student-based.

- Reasons teachers do not differentiate are teacher-based.



Homework

- Make a wish list for Engine-Uity Products. Be ready to meet with your school-level colleagues to finalize selections. Each teacher can spend \$50.
- Decide on the science resources for your school.
- Skim through the assigned resource. Be ready to give the group a summary of the resource and share how you see others using it.