GEORGIA DEPARTMENT OF EDUCATION

Kathy Cox, State Superintendent of Schools

Training for the New Georgia Performance Standards

Day 5: Differentiation

Content Participant's Guide
Mathematics Grades K - 2

We will lead the nation in improving student achievement.

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Use of This Guide

This training program was developed by the Georgia Department of Education as part of a series of professional opportunities to help teachers increase student achievement through the use of the Georgia Performance Standards.

The module materials, including a Content Facilitator's Guide, Participant's Guide, PowerPoint Presentation, and supplementary materials, are available to designated trainers throughout the state of Georgia who have successfully completed a Train-the-Trainer course offered through the Georgia Department of Education.

Materials (guides, presentations, etc.) will be available electronically on http://www.georgiastandards.org under the training tab after all trainings of Day 1 have occurred. Consult the trainer for other availability.

For more information on this or other GPS training, please contact Claire Pierce (404)657-7063 at cpierce@doe.k12.ga.us or Carmen Smith (404)463-1746 at csmith@doe.k12.ga.us.

Agenda

Introduction to Differentiation
- Money In My Pocket
- Four Corners
- Calvin's Day at School

What is Differentiation?
- What is it?
- Standards-Based Education Model
- Self-Assessment
- Money In My Pocket, Continued

How and Why Do We Differentiate?
- How do we differentiate?
- Why do we differentiate?
- Practice Analyzing a Differentiated Task
- Differentiation Stratego: A Reality Game

What Does a Differentiated Classroom Look Like?
- True/False Quiz: What Does Differentiation Look Like?
- Creative Demonstration
- Setting Personal Goals for Differentiating
- Task Time!

Summary and Field Assignment

Module Goal

Demonstrate a deep understanding of the new Georgia Performance Standards and the standards-based education approach, through thoughtful curriculum planning, development of formative and summative assessments, and the design of instruction matched to the standards and research-based best practices. This shall be measured by student performance on progress monitoring and standardized criterion-referenced tests.

Key words from the goal:

- Deep understanding
- Georgia Performance Standards (GPS)
- Standards-based education
- Research-based best practices

Note that the goal will not be reached by any single day of training. It will take preparation, follow up, and eight days of classroom instruction to master this goal.

Module Objectives

By the end of Day 6 of training, participants will be able to:

1. Define differentiation and explain the importance of differentiation in the standards-based education process.

2. Explain key elements in planning for differentiation.

3. Describe and develop procedures for differentiating instruction in a flexible classroom.

4. Describe and develop effective classroom management strategies in a differentiated classroom.

5. Describe the roles of the teacher in a differentiated classroom.

6. Set individual goals for differentiating instruction in each classroom.

7. Cultivate a strong awareness of standards-based teaching and learning.

8. Become familiar with K – 2 mathematics GPS along with the expected depth and rigor.

9. Have a deeper understanding of the content addressed within the module.

Coins In My Pocket

I just pulled my raincoat out of the closet. It hasn't been worn since the last time it rained. I reached into my pocket and I found 10 coins. Without looking at them I try to guess how much money I have.

You are not limited to the number of combinations of coins that you come up with. How many combinations can you find? Which combination do you wish you would find in your pocket?

Tic-Tac-Toe Activity

List two of the combinations you thought of. Write the amount that each is worth. Create a **Venn Diagram** to compare the different amount of money and list the possible things you could buy with those amounts of money.	**Use coins** to make a visual of the different groups you could have found. Label each group with an amount of money. (at least 3 ways)	**Create** a pocket and coins out of construction paper to represent the combination of coins found in your pocket. Label your pocket with the amount of money.
Write a song / rap about your money. It should tell a combination of coins and have the amount of money in the song.	**Make a chart** to show all of the different combinations of coins you can think of (at least 3 ways).	**Make a pattern** with the coins that you found in your pocket. Can you find another pattern with another group of ten coins? Draw your patterns on a piece of paper and label it with the amount of money represented.
Draw a picture of the different combinations of coins. Be sure to separate each group and write how much each group is worth.	**Graph** 1 combination of coins and how many you had of each. Be sure to label all parts of your graph.	**Write a story** about the coins you found, how much money it was, and how you spent your money.

Specialists' Contact Information

For a list of district coordinators visit the Georgia Learning Connection:

English Language Learners
http://www.glc.k12.ga.us/contact/contact.asp?groupname=ESOL+District+Coordinators

Gifted and Talented
http://www.glc.k12.ga.us/contact/contact.asp?groupname=Gifted+Education

For specialists at the Georgia Department of Education:

English Language Learners—Andrea Mirtalebi	amirtale@doe.k12.ga.us
Gifted and Talented—Linda Andrews	lindrew@doe.k12.ga.us
Exceptional Students (Special Education)—Marlene Bryar	mbryar@doe.k12.ga.us

K-2 Mathematics GPS

K-12 Mathematics Introduction
The Georgia Mathematics Curriculum focuses on actively engaging the students in the development of mathematical understanding by using manipulatives and a variety of representations, working independently and cooperatively to solve problems, estimating and computing efficiently, and conducting investigations and recording findings. There is a shift towards applying mathematical concepts and skills in the context of authentic problems and for the student to understand concepts rather than merely follow a sequence of procedures. In mathematics classrooms, students will learn to think critically in a mathematical way with an understanding that there are many different ways to a solution and sometimes more than one right answer in applied mathematics. Mathematics is the economy of information. The central idea of all mathematics is to discover how knowing some things well, via reasoning, permit students to know much else—without having to commit the information to memory as a separate fact. It is the connections, the reasoned, logical connections that make mathematics manageable. As a result, implementation of Georgia's Performance Standards places a greater emphasis on problem solving, reasoning, representation, connections, and communication.

Kindergarten

By the end of kindergarten, students will understand small numbers, quantities, and simple shapes in their everyday environment. They will also count, compare, describe and sort objects, and develop a sense of properties and patterns. Students will begin to understand measurement through the direct comparison of objects, money by making fair trades with coins and the concept of time by experiencing a daily schedule.
Instruction and assessment should include the use of manipulatives and appropriate technology. Topics should be represented in multiple ways including concrete/pictorial, verbal/written, numeric/data-based, graphical, and symbolic. Concepts should be introduced and used in the context of real world phenomena.

MKN. Numbers and Operations

Students will correctly represent the number and order of objects using numbers and understand them.

MKN1. Students will connect numerals to the quantities they represent.
a. Count a number of objects up to 30.
b. Produce models for number words through ten.

c. Write numerals through 20 to label sets.
d. Sequence and identify using ordinal numbers (1st-10th).
e. Compare two or more sets of objects (1-10) and identify which set is equal to, more than, or less than the other.
f. Estimate quantities using five and ten as a benchmark. (e.g. 9 is one five and four more. It is closer to two fives or one 10 than it is to one five.).
g. Use informal strategies to share objects equally (divide) between two to three people or sets.
h. Identify coins by name and value (penny, nickel, dime, and quarter).
i. Count out pennies to buy items that together cost less than 30 cents.
j. Make fair trades involving combinations of pennies and nickels or pennies and dimes.

MKN2. Students will use representations to model addition and subtraction.
a. Use counting strategies to find out how many items are in two sets when they are combined.
b. Build number combinations up to 10 (e.g., 4 and 1, 2 and 3, 3 and 2, 4 and 1 for five) and for doubles to 10 (3 and 3 for six).
c. Use objects, pictures, numbers, or words to create, solve and explain story problems for two numbers that are each less than 10.

MKM. Measurement

Students will explore quantitative situations involving distance, length, capacity, weight, time, and temperature.

MKM1. Students will group objects according to common properties such as color, shape, texture, or number.
a. Compare and order objects on the basis of length.
b. Compare and order objects on the basis of capacity.
c. Compare and order objects on the basis of height.
d. Compare and order objects on the basis of weight.

MKM2. Students will understand the measurement of calendar time.
a. Know the names of the days of the week.
b. Know the months of the year.
c. Know the four seasons.

MKM3. Students will tell time as it relates to a daily schedule.
a. Order daily events.
b. Tell the time when daily events occur, such as lunch, to the nearest hour.

c. Know the name of the day of the week when weekly events occur in class.

MKG. Geometry

Students will recognize and name basic geometric shapes and spatial relationships.

MKG1. Students will correctly name simple two and three-dimensional figures, and recognize them in the environment.
a. Recognize and name the following basic two-dimensional shapes: triangles, rectangles, squares, and circles.
b. Recognize and name the following three-dimensional shapes: spheres (balls), and cubes.
c. Observe concrete objects in the environment and represent the objects using basic shapes, such as drawing a representation of a house using a square together with a triangle for the roof.
d. Combine basic shapes into basic and more complicated shapes, and will decompose basic shapes into combinations of basic shapes.
e. Compare geometric shapes and identify similarities and differences of the following two and three-dimensional shapes: triangles, rectangles, squares, circles, spheres, and cubes.

MKG2. Students will understand basic positional relationships.
a. Identify when an object is beside another object, above another object, or below another object.
b. Identify when an object is in front of another object, behind another object, inside another object or outside it.

MKG3. Students will identify, create, extend, and transfer patterns from one representation to another using actions, objects, and geometric shapes.
a. Identify a missing shape within a given pattern of geometric shapes.
b. Extend a given pattern, and recognize similarities in different patterns.

MKD. Data Analysis and Probability

Students will pose questions and gather data about themselves and their surroundings.

MKD1. Students will pose information questions, collect data, organize, and record results using objects, pictures, and picture graphs.

MKP. Process Skills

Students will apply mathematical concepts and skills in the context of authentic problems and will understand concepts rather than merely follow a sequence of procedures. The students will use the process standards as a way of acquiring and using content knowledge.

MKP1. Students will solve problems that arise in mathematics and in other contexts.
a. Solve non- routine word problems using the strategy act out the problem or use objects.
b. With the use of manipulatives, solve routine word problems related to all appropriate kindergarten math standards.

MKP2. **Students will investigate, develop, and evaluate mathematical arguments.**

MKP3. **Students will use the language of mathematics to express ideas precisely.**

MKP4. Students understand how mathematical ideas interconnect and build on one another and apply mathematics in other content areas.

MKP5. Students will create and use pictures, manipulatives, models, and symbols to organize, record, and communicate mathematical ideas.

Terms/Symbols:
numbers through 30, set, longer, shorter, heavier, lighter, morning, afternoon, evening, yesterday, today, tomorrow, days of the week, months of the year, seasons, triangle, rectangle, square, circle, sphere, cube, beside, above, below, in front of, behind, inside, outside, more, less, equal.

Grade 1

By the end of grade one, students will understand and use the concept of ones and tens in the place value number system. The students will add and subtract small numbers with ease. They will represent quantity with numbers, models, diagrams, and number sentences. They will begin to use tools for measuring and observe, create, and decompose geometric shapes and solve simple problems including those involving spatial relationships. The students will pose questions, record data, and interpret simple charts and picture graphs.

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Instruction and assessment should include the use of manipulatives and appropriate technology. Topics should be represented in multiple ways including symbolic, verbal/written, numeric/data-based, graphical, and concrete/pictorial. Concepts should be introduced and used in the context of real world phenomena.

Concepts/Skill to Maintain
Number words
Ordinal numbers
Equivalence
Basic geometric shapes
Positional words
Calendar time
Estimating—using 10 as a benchmark
Name and value of coins

M1N. Number and Operations

Students will understand how to represent numbers, and be able to add and subtract small numbers.

M1N1. Students will estimate, model, compare, order, and represent whole numbers up to 100.
a. Represent numbers less than 100 using a variety of models, diagrams, and number sentences. Represent numbers larger than 10 in terms of tens and ones using counters and pictures.
b. Correctly count and represent the number of objects in a set using numerals.
c. Compare small sets using the terms greater than, less than, and equal to (<, >, =).
d. Understand the magnitude and order of numbers up to 100 by making ordered sequences and representing them on a number line.
e. Exchange equivalent quantities of coins by making fair trades involving combinations of pennies, nickels, dimes, and quarters and count out a combination needed to purchase items less than a dollar.
f. Identify bills ($1, $5, $10, $20) by name and value and exchange equivalent quantities by making fair trades involving combinations of bills and count out a combination of bills needed to purchase items less than twenty dollars.

M1N2. Understand place value notation for the numbers between 1 and 100. (Discussions may allude to 3-digit numbers to assist in understanding place value.)

a. Determine which multiple of ten a given number is nearest (rounding) using tools such as a sequential number line or hundreds chart to assist in estimating.
b. Represent collections of less than 30 objects with 2-digit numbers and understand the meaning of place value. (Make sure that students, when given a number like 27 initially describe it as 2 tens and 7 ones, and only later use standard language, twenty-seven, when talking about the number.)

M1N3. Students will add and subtract numbers less than 100 as well as understand and use the inverse relationship between addition and subtraction.
a. Identify one more than, one less than, 10 more than, and 10 less than a given number.
b. Skip-count by 2's, 5's, and 10's forward and backwards – to and from numbers up to 100.
c. Compose/decompose numbers up to 10 --"break numbers apart", e.g., 8 is represented as 4 + 4, 3 + 5, 5 + 2 + 1, and 10-2). Decompose numbers between 11 and 19 as one ten and the appropriate number of ones.
d. Understand a variety of situations to which subtraction may apply: taking away from a set, comparing two sets, and determining how many more or how many less.
e. Understand addition and subtraction number combinations using strategies such as counting on, counting back, doubles and making tens.
f. Know the single-digit addition facts to 18 and corresponding subtraction facts with understanding and fluency. (Use strategies such as relating to facts already known, applying the commutative property, and grouping facts into families.)
g. Apply addition and subtraction to 2 digit numbers without regrouping (e.g. 15 + 4, 80-60, 56 + 10, 100-30, 58 + 5).
h. Solve and create word problems involving addition and subtraction to 100 without regrouping. Use words, pictures and concrete models to interpret story problems and reflect the combining of sets as addition and taking away or comparing elements of sets as subtraction.

M1N4. Students will count collections of up to 100 objects by dividing them into equal parts and represent the results using words, pictures, or diagrams.
a. Use informal strategies to share objects equally between two to five people.
b. Build number patterns, including concepts of even and odd, using various concrete representations. (Examples of concrete representations include a hundreds chart, ten grid frame, place value chart, number line, counters, or other objects.).
c. Identify, label and relate fractions (halves, fourths) as equal parts of a whole using pictures and models.

M1M. Measurement

Students will measure basic quantitative attributes of concrete objects.

M1M1. Students will compare and/or order the length, weight, or capacity of two or more objects by using direct comparison or a nonstandard unit.
a. Directly compare length, weight, and capacity of concrete objects.
b. Estimate and measure using a non-standard unit that is smaller than the object to be measured.
c. Measure with a tool by creating a "ruled" stick, tape, or container by marking off ten segments of the repeated single unit.

M1M2. Students will develop an understanding of the measurement of time.
a. Tell time to the nearest hour and half hour and understand the movement of the minute hand and how it relates to the hour hand.
b. Begin to understand the relationship of calendar time by knowing the number of days in a week and months in a year.
c. Compare and/or order the sequence or duration of events (e.g., shorter/longer and before/after).

M1G. Geometry

Students will understand the concepts of basic geometric shapes and spatial relationships of concrete objects.

M1G1. Students will study and create various two and three-dimensional figures and identify basic figures (squares, circles, triangles, and rectangles) within them.
a. Build, draw, name, and describe triangles, rectangles, pentagons, and hexagons.
b. Build, represent, name, and describe cylinders, cones, and rectangular prisms (objects that have the shape of a box).
c. Create pictures and designs using shapes, including overlapping shapes.

M1G2. Students will compare, contrast, and/or classify geometric shapes by the common attributes of position, shape, size, number of sides, and number of corners.

M1G3. Students will arrange and describe objects in space by proximity, position, and direction (near, far, below, above, up, down, behind, in front of, next to, and left or right of).

M1D. Data Analysis and Probability

Students will pose questions, collect, organize and interpret data about themselves and their surroundings.

M1D1. Students will create simple tables and graphs and interpret them.
a. Interpret tally marks, picture graphs and bar graphs.
b. Organize and record data using objects, pictures, tally marks, and picture graphs.

M1P. Process Skills

Students will apply mathematical concepts and skills in the context of authentic problems and will understand concepts rather than merely following a sequence of procedures. The student will use the process standards as a way of acquiring and using content knowledge.

M1P1. Students will solve problems that arise in mathematics and in other contexts.
a. Solve non- routine word problems using the strategy make a picture or diagram and continue to develop the strategy act out or use objects learned in kindergarten.
b. Solve single step routine word problems related to all appropriate first grade math standards.
c. Determine the operation(s) needed to solve a problem.
d. Determine the most efficient way to solve a problem (mentally, paper/pencil, or calculator).

M1P2. Students will investigate, develop, and evaluate mathematical arguments.

M1P3. Students will use the language of mathematics to express ideas precisely.

M1P4. Students understand how mathematical ideas interconnect and build on one another and apply mathematics in other content areas.

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M1P5. Students will create and use pictures, manipulatives, models, and symbols to organize, record, and communicate mathematical ideas.
Terms/Symbols:
place value—ones, tens, hundreds, greater than, less than, equal to, fewer than, more than, sum/add, difference/subtract, coins—penny, nickel, dime, quarter, compare/contrast, length, weight, estimate, hexagon, cylinder, cone, rectangular prism, <, >, =, +, -, even, odd, tally mark

Grade 2

By the end of grade two, students will understand place value and number relationships in addition and subtraction and use simple concepts of multiplication. They will measure length with appropriate units and determine perimeter. Students will classify shapes and see relationships among them by recognizing their geometric attributes. They will know the relationships of time and count back change. The students will collect, analyze, and interpret data using bar graphs and Venn diagrams.
Instruction and assessment should include the use of manipulatives and appropriate technology. Topics should be represented in multiple ways including symbolic, verbal/written, numeric/data-based, graphical, and concrete/pictorial. Concepts should be introduced and used in the context of real world phenomena.

Concepts/Skill to Maintain
Fluency with single digit addition/subtraction facts to 18
Fair trades with coins or bills
Duration and sequence of events
Number patterns-skip count, odd/even
Fact families
Fractions.halves, fourths
Tally marks
Picture graphs
Estimation.rounding to nearest ten

M2N. Numbers and Operations

Students will further develop their understanding of numbers - including fractions - and how to represent them. The students will understand and apply addition, subtraction and multiplication through concrete manipulation and perform basic calculations.

M2N1. Students will understand the place value representation of whole numbers through four digits.

a. Represent numbers using a variety of models, diagrams, and number sentences (e.g., 4703 represented as 4,000 + 700 + 3, and units, 47 hundreds + 3, or 4,500 + 203).
b. Understand the relative magnitudes of numbers using 10 as a unit, 100 as a unit, or 1000 as a unit. Represent 2-digit numbers with drawings of tens and ones and 3-digit numbers with drawings of hundreds, tens, and ones.
c. Use money as a medium of exchange. Count back change and use decimal notation and the dollar and cent symbols to represent a collection of coins and currency.

M2N2. Students will build fluency with multi-digit addition and subtraction.
a. Correctly add and subtract two whole numbers up to three digits each with regrouping.
b. Understand and use the inverse relation between addition and subtraction to solve problems and check solutions.
c. Use mental math strategies such as benchmark numbers to solve problems.
d. Use basic properties of addition (commutative, associative, and identity) to simplify problems (e.g. 98 + 17 by taking two from 17 and adding it to the 98 to make 100 and replacing the original problem by the sum 100 + 15).
e. Estimate to determine if solutions are reasonable for addition and subtraction.

M2N3. Students will understand multiplication, multiply numbers, and verify results.
a. Understand multiplication as repeated addition.
b. Use repeated addition, arrays, and counting by multiples (skip counting) to correctly multiply 1-digit numbers and construct the multiplication table.
c. Use the multiplication table (grid) to determine a product of two numbers.
d. Use repeated subtraction, equal sharing, and forming equal groups to divide large collections of objects and determine factors for multiplication.

M2N4. Students will understand and compare common fractions with small denominators.
a. Model, identify, label, and compare fractions (thirds, sixths, eighths, tenths) as a representation of equal parts of a whole or of a set.
b. Know that when all fractional parts are included, such as three thirds, the result is equal to the whole.

M2N5. Students will represent and interpret quantities and relationships using mathematical expressions including equality and inequality signs (=, <, >).
a. Include the use of boxes or ___ to represent a missing value.
b. Represent problem solving situations where addition, subtraction or multiplication may be applied using mathematical expressions.

M2M. Measurement

Students will understand length, time, and temperature and choose an appropriate tool to measure them.

M2M1. Students will know the standard units of inch, foot, yard, and metric units of centimeter and meter and measure length to the nearest inch or centimeter.
a. Compare the relationship of one unit to another by measuring objects twice using different units each time.
b. Estimate lengths, and then measure to determine if estimations were reasonable.
c. Determine an appropriate tool and unit for measuring.

M2M2. Students will tell time to the nearest five minutes and know relationships of time such as the number of minutes in an hour and hours in a day.

M2M3. Students will estimate, then measure, temperature (Fahrenheit) and determine if estimations were reasonable.

M2G. Geometry

Students will understand basic and compound geometric shapes together with the elements from which they are composed.

M2G1. Students will describe and classify plane figures (triangles, square, rectangle, trapezoid, quadrilateral, pentagon, hexagon, and irregular polygonal shapes) according to the number of edges and vertices and the sizes of angles (right angle, obtuse, acute).

M2G2. Students will describe and classify solid geometric figures (prisms, cylinders, cones, and spheres) according to such things as the number of edges and vertices and the number and shape of faces and angles.
a. Recognize the (plane) shapes of the faces of a geometric solid and count the number of faces of each type.
b. Recognize the shape of an angle as a right angle, an obtuse or acute angle.

M2G3. Students will describe the change in attributes as two and threedimensional shapes are cut and rearranged.

Students will pose questions, collect, organize, and interpret data about themselves and their surroundings.

M2D1. Students will create simple tables and graphs and interpret their meaning.
a. Organize and display data using picture graphs, Venn diagrams, bar graphs, and simple charts/tables to record results.

b. Know how to interpret picture graphs, Venn diagrams, and bar graphs.

M2P. Process Skills

Students will apply mathematical concepts and skills in the context of authentic problems and will understand concepts rather than merely following a sequence of procedures. The students will use the process standards as a way of acquiring and using content knowledge.

M2P1. Students will solve problems that arise in mathematics and in other contexts.
a. Solve non- routine word problems using the strategies of use or look for a pattern or guess and check as well as all strategies learned in previous grades.
b. The student will solve single step routine word problems related to all appropriate second grade math standards.
c. Determine the operation(s) needed to solve a problem.
d. Determine the most efficient way to solve a problem (mentally, paper/pencil, or calculator).

M2P2. Students will be able to investigate, develop, and evaluate mathematical arguments.

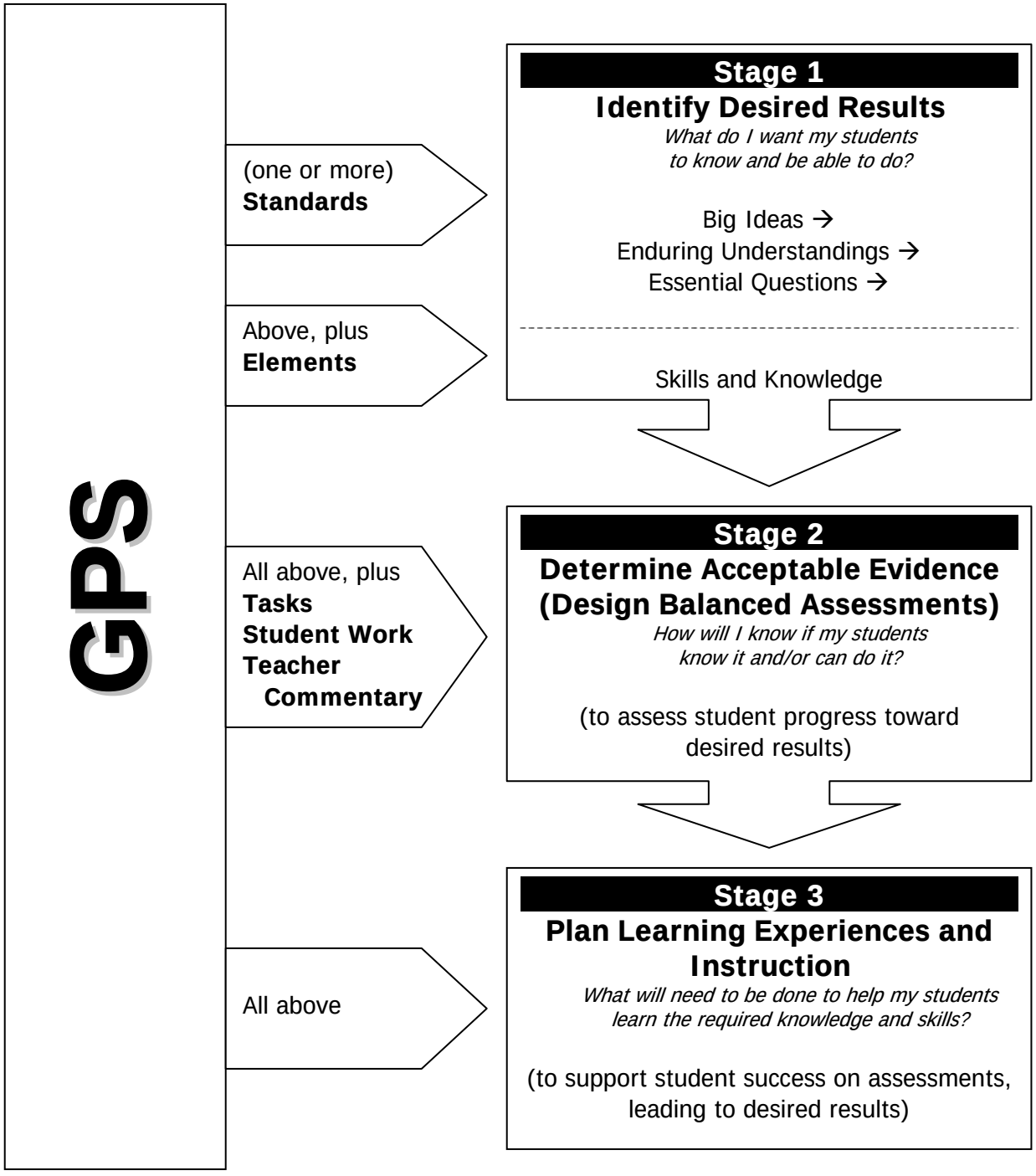
M2P3. Students will be able to use the language of mathematics to express ideas precisely.

M2P4. Students understand how mathematical ideas interconnect and build on one another and apply mathematics in other content areas.

M2P5. Students will be able to create and use pictures, manipulatives, models, and symbols to organize, record, and communicate mathematical ideas.

Terms/Symbols:
place value.thousands, sum, difference, product, multiply, regroup, array, numerator, denominator, inch, foot, yard, centimeter, meter, quadrilateral, right angle, obtuse, acute, edge, face, vertex/vertices, prism, perimeter, plane, >, <, =, ≠, +, -, x, minute, hour, Venn diagram

GPS and the Unit Design Process



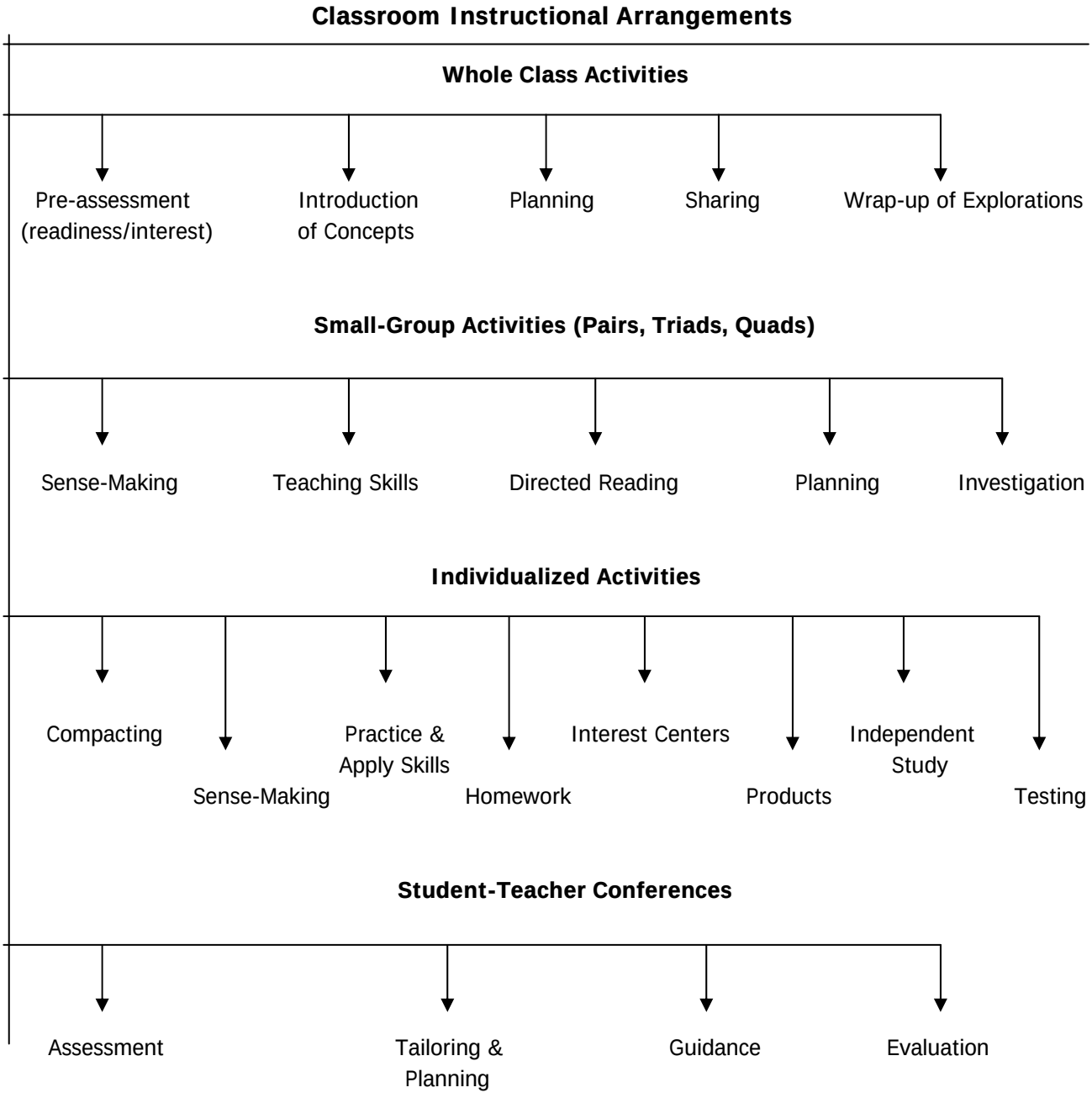
Some Underlying Assumptions of Differentiated Instruction

Read each assumption and assess your own "way of thinking about teaching" by marking the star if this assumption is implicit when planning instruction, the smiley face if you take this assumption into consideration in some way during planning and the question mark if you need to think about your practice in terms of this assumption.

The Underlying Assumption	☆	☺	**?**
1. When planning, I accommodate multiple and varied learning needs (social as well as cognitive), rather than attempting to accommodate them after student frustration or failure.			
2. I work to create and maintain a classroom community where students feel safe and valued as they are; at the same time I support each student in order to maximize his or her potential.			
3. I interact with each student with positive regard and positive expectations.			
4. I recognize every student has both talents and areas of need, and I emphasize the student's strengths rather than accentuating labels, deficits, or differences. At the same time, I do not call attention to the differentiation, but rather I help students appreciate varied ways in which all of them can find personal success with important goals.			
5. I use multiple and alternative forms of assessment at all stages of student learning in order to uncover and address a full range of learning needs and strengths.			
6. I gather and employ knowledge and information about my students in order to identify and address their varied readiness levels, interests, and learning profiles.			
7. I find ways to provide opportunities for all students to access meaningful and powerful ideas, information, and skills rather than reducing the standards, watering down the curriculum, or assigning busy work.			
8. I use multiple methods to engage students in active learning. Although I may employ whole-class instruction, I question and encourage student discussions and explanations to enrich and remediate throughout the instruction.			
9. I work to develop classroom management skills that allow 1) multiple tasks to proceed smoothly in the classroom, 2) students to take increasing responsibility for their learning, and 3) the time to monitor student activity and coach for student growth and quality work.			

Based on the work of Stephanie Corrigan, Utah Valley State College. Adapted and modified from "The Facilitator's Guide," *At Work in the Differentiated Classroom*, Alexandria: ASCD, 2001, 57-58.

Range of Activities in a Differentiated Classroom



Carol Ann Tomlinson, *How to Differentiate in Mixed-Ability Classrooms*, 2nd ed., Alexandria: ASCD, 2001, 25.

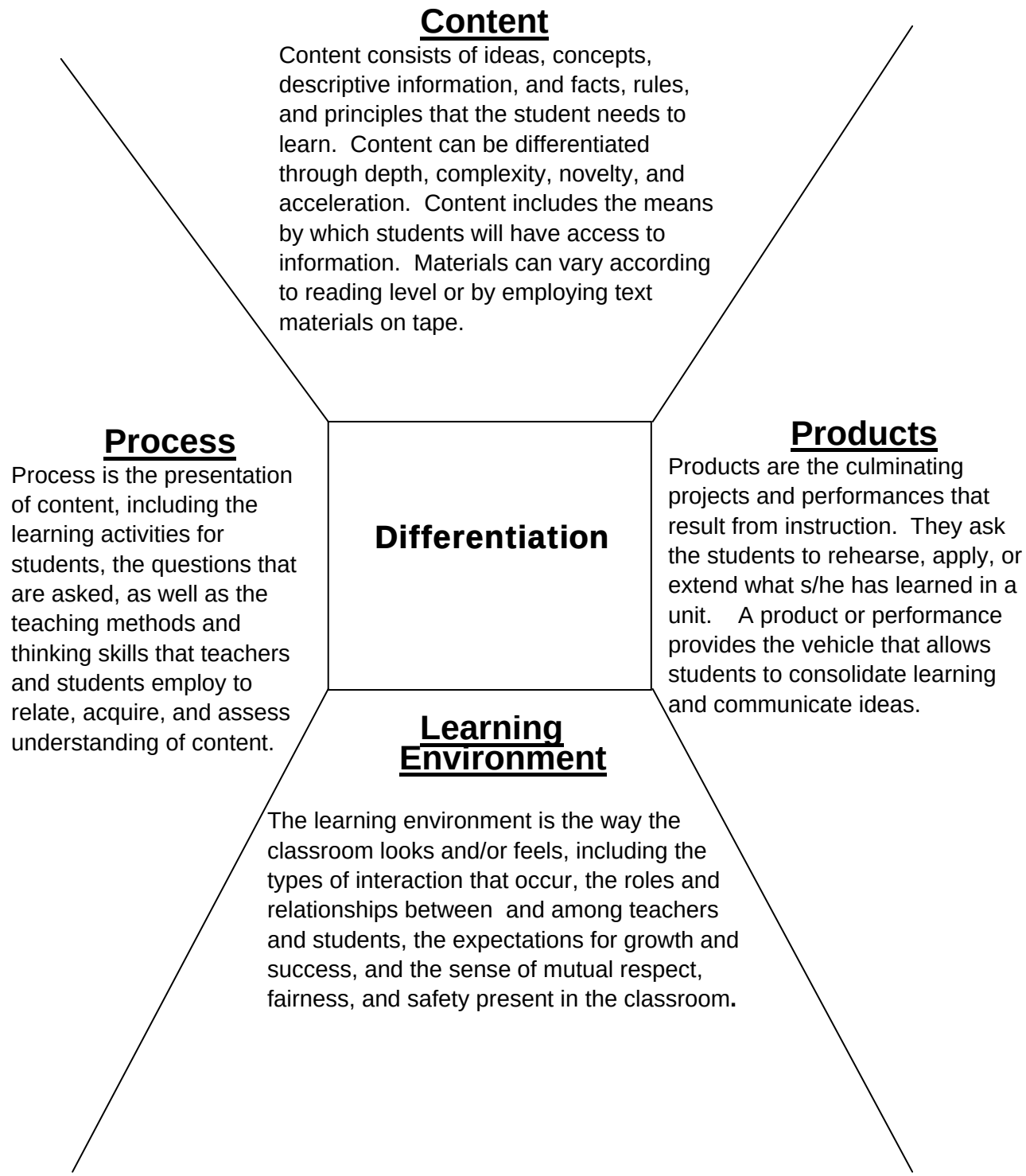
Pre-Assessment Strategies

- ✓ **teacher prepared pretest**
- ✓ **KWL charts and other graphic organizers**
- ✓ **writing prompts/samples**
- ✓ **questioning**
- ✓ **guess box**
- ✓ **picture interpretation**
- ✓ **prediction**
- ✓ **teacher observation/checklists**
- ✓ **student demonstrations and discussions**
- ✓ **initiating activities**
- ✓ **informational surveys/questionnaires/inventories**
- ✓ **student interviews**
- ✓ **student products and work samples**
- ✓ **self-evaluations**
- ✓ **portfolio analysis**
- ✓ **game activities**
- ✓ **show of hands to determine understanding: every pupil response**
- ✓ **drawing related to topic or content**
- ✓ **standardized test information**
- ✓ **reader response survey**
- ✓ **anticipation journals**

Differentiation

	What is it?	How to differentiate?	Strategies to use?
Content			
Process			
Product			
Learning Environment			

What to Differentiate



How can we differentiate a task for this standard?

M1G2. Students will compare, contrast, and/or classify geometric shapes by the common attributes of position, shape, size, number of sides, and number of corners.

THE TASK:
Analyze the Standard.

THE TOOLS:

- *How* could we differentiate—content, process, product, learning environment;
- *Why* would we differentiate—access, motivation, efficiency;

Strategies for Managing a Differentiated Classroom

Carol Ann Tomlinson

1. Have a strong rationale for differentiation instruction based on student readiness, interest, and learning profile.
2. Begin differentiating at a pace that is comfortable for you.
3. Time differentiated activities to support student success.
4. Use an "anchor activity" to free you up to focus your attention on your students.
5. Create and deliver instructions carefully
6. Assign students into groups or seating areas smoothly.
7. Have a "home base" for students.
8. Be sure students have a plan for getting help when you're busy with another student or group.
9. Minimize noise.
10. Make a plan for students to turn in work.
11. Teach students to rearrange furniture.
12. Minimize "stray movement".
13. Promote on-task behavior.
14. Have a plan for "quick finishers".
15. Make a plan for "calling a halt".
16. Give your students as much responsibility for their learning as possible.
17. Engage your students in talking about classroom procedures and group process

The Equalizer

Concrete to → abstract
(representations, ideas, applications, materials)

Simple to → complex
(resources, research, issues, problems, skills, goals)

Basic to → transformational
(information, ideas, materials, applications)

Single facets to → multi-facts
(directions, problems, applications, solutions, approaches, disciplinary connections)

Smaller leaps to → greater leaps
(application, insight, transfer)

More structured to → more open
(solutions, decisions, approaches)

Less independence to → greater independence
(planning, designing, monitoring)

Slow to → faster
(pace of study, pace of thought)

Tomlinson

What Does Differentiation Look Like: A True/False Quiz

Directions: Mark the item T if it is TRUE for a differentiated classroom or F if it is FALSE for a differentiated classroom. After you have responded individually, compare your answers to the others in your table group. When you disagree, discuss your various points and attempt to reach consensus.

_____ 1. Allowing all students in the class to complete the same work for a unit/chapter.

_____ 2. Assessing students before a unit of instruction to determine what they already know.

_____ 3. Adjusting the **core** curriculum by content (below to above grade level),

_____ 4. Limiting how and what is taught by teaching to the average student.

_____ 5. Providing assignments tailored for students of different levels of achievement.

_____ 6. Having high expectations for **ALL** students.

_____ 7. Providing educational experiences which extend, replace, or supplement standard curriculum.

_____ 8. Assigning more work at the same level to high achieving students.

_____ 9. Focusing on student weaknesses and ignoring student strengths.

_____ 10. Using activities that **all** students will be able to do.

_____ 11. Structuring class assignments so they require high levels of critical thinking and allow for a range of responses.

_____ 12. Giving the same kind of problems or questions and expecting more.

_____ 13. Creating more work-extra credit, to do when done.

_____ 14. Having students participating in respectful work.

_____ 15. Putting students in situations where they don't know the answer often.

_____ 16. Ensuring that students and teachers collaborating in learning.

_____ 17. Providing free-time challenge activities.

_____ 18. Differing the pace of instruction.

_____ 19. Using capable students as tutors.

_____ 20. Using higher standards when grading.

_____ 21. Blending of whole class, group, and independent learning.

_____ 22. Using individualized instruction.

What Does Differentiated Instruction Look Like?

Differentiated Instruction is...	**Differentiated Instruction is not...**
1.Assessing students before a unit of instruction to determine what they already know	1.All students in the class completing the same work for a unit/chapter
2.Adjustment of the **core** curriculum by content (below to above grade level), process (concrete to abstract), and product (simple to complex)	2 Limiting how and what is taught by teaching to the average student
3.Providing assignments tailored for students of different levels of achievement	3. Assigning more work at the same level to high achieving students
4. Having high expectations for **ALL** students	4. Focusing on student weaknesses and ignoring student strengths
5. Educational experiences which extend, replace, or supplement standard curriculum	5. Activities that **all** students will be able to do
6. Structuring class assignments so they require high levels of critical thinking and allow for a range of responses	6. Giving the same kind of problems or questions and expecting more
7. Students participating in respectful work	7. Creating more work-extra credit, do when done
8. Students and teachers collaborating in learning	8. Using higher standards when grading
9. Putting students in situations where they don't know the answer- often	9. Providing free-time challenge activities
10. Differing the pace of instruction	10.Using capable students as tutors
11. A blend of whole class, group, and independent learning	11. Using individualized instruction

A Traditional Classroom Compared to a Differentiated One

Traditional Classroom	Differentiated Classroom
1. Student differences are masked or acted upon when problematic.	1. Student differences are studied as a basis for planning.
2. Assessment is most common at the end of learning to see "who got it."	2. Assessment is ongoing and diagnostic to understand how to make instruction more responsive to learner need.
3. A relatively narrow sense of intelligence prevails.	3. Focus on multiple forms of intelligence is evident.
4. A single definition of excellence exists.	4. Excellence is defined by individual growth from a starting point.
5. Student interest is infrequently tapped.	5. Students are frequently guided in making interest-based learning choices.
6. Relatively few learning profile options are	6. Many learning profile options are provided. taken into account.
7. Whole class instruction dominates.	7. Many instructional arrangements are used.
8. Coverage of texts and/or curriculum guides drives instruction.	8. Student readiness, interest, and learning profile shape instruction.
9. Mastery of facts and skills out-of-context focus of learning.	9. Use of essential skills to make sense of the key concepts and principles is the focus of learning.
10. Single-option assignments are the norm.	10. Multi-option assignments are frequently used.
11. Time is relatively inflexible.	11. Time is used flexibly in accordance with student need.
12. A single text prevails.	12. Multiple materials are provided.

13. Single interpretations of ideas and events	13. Multiple perspectives on ideas and events are routinely sought.
14. The teacher directs student behavior.	14. The teacher facilitates students' skills at becoming more self-reliant learners.
15. The teacher solves problems.	15. Students help one another and the teacher solve problems.
16. A single form of assessment is often used.	16. Students are assessed in multiple ways.

Carol Tomlinson, 1998

Low-Prep and High-Prep Differentiation

Low-Prep Differentiation

- Choice of books
- Homework options
- Use of reading buddies
- Varied journal prompts
- Orbitals
- Varied pacing with anchor options
- Student-teacher goal setting
- Work alone/work together
- Whole-to-part and part to whole explanations
- 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
- Miniworkshops to reteach or extend skills
- Jigsaw
- Negotiated Criteria
- Explorations by interest
- Games to practice mastery of information and skill
- 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
- Interest groups
- Tiered centers
- Interest centers
- Personal agendas
- Literature Circles
- Stations
- Complex instruction
- Group investigation
- Tape-recorded materials
- Teams, Games, and Tournaments
- Think-Tac-Toe
- Simulations
- Problem-Based Learning
- Graduated rubrics
- Flexible reading formats
- Student-centered writing Formats

Tomlinson, *How to Differentiate in Mixed-Ability Classrooms*, 34.

Redelivery Action Plan

Directions: Complete the following chart to create your individual plan for building a differentiated classroom. Consider the following:

- What am I already doing to differentiate?
- How can I assess and use student readiness, interests, and learning profiles to maximize learning growth for every student?
- How can I differentiate content, process, products, or the learning environment?
- How can I employ Tomlinson's Equalizer to create tiered assignments, activities, tasks, and products?

Step/Activity	Who	By When	How	Resources and Ideas

Glossary

Ability Grouping—Grouping students according to similar readiness levels or learning profiles.

Alternate Assignment—Assignments given to particular students or groups of students in lieu of the assignment given to the other members of the class. These assignments are designed to capitalize on student readiness levels, interests, or learning profiles.

Anchor Activity—A task or activity that a student automatically moves to upon completion of other assigned work.

Cluster Grouping—Flexible grouping and regrouping of students within a classroom to accommodate different instructional needs at different times and/or for different subject or content, different readiness levels, interests, or learning profiles.

Compacting—Modifying or streamlining content, process, or product in order to eliminate repetition of previously mastered material.

Contracting—Students contract for grades and/or choose from a variety of available project/product options.

Cooperative Learning—Students work with other students in groups to achieve a specific goal or purpose. Each group member has a particular, predetermined role in helping the group reach its goal.

Exit Cards—Teacher distributes index cards to students a few minutes before the end of class. Students respond quickly to a specific prompt such as "What's the most important thing you learned today?" Exit cards provide a quick and easy method of assessing understanding.

Flexible Grouping—Purposeful reordering of students into a variety of different groups in a short amount of time in order to ensure that all students work with a number of different students on a regular basis. Criteria for grouping—readiness, interest, learning profile, activity or task, content—will vary regularly as well.

Interest Centers/Groups—Interest centers (often used with younger learners) and groups (often used with older learners) allow students choice in an area or areas of study.

Independent Study Projects—A student or small group of students pursues an area of interest related to a specific topic, curricular area, or individual area of interest.

Literature Circles—Small groups of students read and/or study different books with varying degrees of difficulty and/or focusing on a variety of topics of interest.

Product/Project Options—Students chose from a variety of options the way that they will provide evidence of learning. These options allow students to utilize their individual strengths and interests.

Pyramid Activities—Any activity that begins with students working individually, progresses through pairs, groups of four, etc., until ending with the whole-class group. A good way to review material or to practice test-taking strategies. Students may begin by individually recording what they know and then add to or change their responses as they collaborate with other students.

Questioning Strategies—Different types of questions are employed before, during, and after an activity, a lesson, or a unit of instruction to engage and challenge students to demonstrate their understanding from the knowledge level to the evaluation level. These questions allow students to clarify their thinking, increase their knowledge, and deepen their understanding.

RAFT Activities—Students select a Role, Audience, Format, and Topic for a particular task. The task vary but may include writing, oral presentations, skits, review activities, etc.

Reader's Workshop—This student-centered, instructional model for "real reading" uses authentic literature and allows students to self-select books. Students read at their own pace, reflect on what they read, and talk about their reading with others.

Reading Buddies—One name for peer reading partners, pairs of students who assist each other in reading for comprehension. They may take turns: one reading aloud and the other summarizing OR one reading aloud while the other formulates questions about that reading, etc.

Scaffolding—This refers to any support system that enables students to succeed with tasks they find genuinely challenging.

Subject/Content Acceleration—A student or group of students moves to a higher level of at an earlier time or age than the other students.

Thinking Maps—Visual representations of ideas that allow students to "unpack" their thinking and organize ideas in a visual format rather than solely in sentences or paragraphs.

Tiered Assignments—Teachers adjust the degree of difficulty for a particular assignment or task in order to meet the needs of students with varying levels of readiness, varying interests, and/or varying learner profiles.

Writer's Workshop—This student-centered, instructional model for "real writing" uses authentic assignments that allow students to participate in differentiated activities while participating in all stages of the writing process. Students spend time on self-selected writing activities.

Recommended Readings/Viewings/Websites: Differentiation

Note: A more general list of resources for the standards-based education process is contained in the materials for Day 1 of training.

At Work in the Differentiated Classroom. Alexandria, VA: ASCD, 2001.

This excellent resource includes three VHS tapes and a Facilitator's Guide. The videos provide clips of real differentiated classrooms and include commentary by Carol Ann Tomlinson. One set of these materials is being sent to each local system.

Berger, Sandra L. "Differentiating Curriculum for Gifted Students." 1991. Information Center on Disabilities and Gifted Children. Council on Exceptional Children, 1996. http://ericec.org/digests/e510.html.

Berger provides an overview of four areas of differentiation: content, process, product, and learning environment. In addition, she lists seven guiding principles for curriculum differentiation developed by the curriculum committee of the Leadership Training Institute.

Hall, Tracey, Nicole Strangman, and Anne Meyer. "Differentiated Instruction and Implications for UDL Implementation: Effective Classroom Practices Report." *Ideas that Work*. National Center on Accessing the General Curriculum. U.S. Office of Special Education Programs. CAST, Inc. 1999-2005. http://www.cast.org/publications/ncac/ncac_diffinstructudl.html.

This report examines information on the theory and research behind differentiated instruction and the intersection with Universal Design for Learning (UDL), a curriculum designed approach to increase flexibility in teaching and decrease the barriers that frequently limit student access to materials and learning in classrooms. The report includes a number of links to sites with more information about differentiated instruction.

"Interact Graphic Organizers." *Write Design Online*. zNet. http://www.writedesignonline.com/organizers/interact.html#interaction.

Using varying types/levels of graphic organizers provides one means of differentiating content or process. This website includes a number of different types of graphic organizers along with explanations and suggestions for their use. Links to other resources may also be valuable.

"The I-Search Curriculum Unit." *Literacy Matters*. Education Development Center, Inc., 2003-04. http://www.literacymatters.org/content/isearch/intro.htm.

Individual and group investigations, valuable strategies for differentiation, may be organized as I-Searches. An I-Search can actively engage students in the research process as they

pursue questions of importance that they care about. This site explains one version of the I-Search process.

Laturnau, Joseph. "Standards-Based Instruction for English Language Learners." Honolulu: **Pacific Resources for Education and Learning**. http://www.prel.org/products/pc_/standards-based.htm.

This article examines the potential benefits of standards-based instruction for English Language Learners (ELLs), presents a standards-based process for designing standards-based instructional units, and reviews the design of two standards-based units for ELLs. The benefits of performance standards for ELLs are clearly represented in a chart included in the article.

Teaching Styles Inventory. Texas Collaborative for Teaching Excellence. CORD, 2005. http://www.texascollaborative.org/tools/TSI.pdf.

Use this twelve item teaching style inventory to self-assess and self-score your teaching style in the areas of concept representation, learning, interaction, and cognitive processing.

Tomlinson, Carol Ann. *How to Differentiate in Mixed-Ability Classrooms*. 2nd ed. Alexandria, ASCD, 2001.

This valuable resource explains both the theory behind and the means to achieve differentiation in mixed-ability classrooms. Each school received one copy of this resource along with other materials in the fall of 2004.

-----. "Mapping a Route Toward Differentiated Instruction." *Educational Leadership* 57.1 (Sept. 1999): 12-16. http://pdonline.ascd.org/pd_online/diffinstr/ el199909_tomlinson.html.

Tomlinson provides a view into three separate classrooms to illustrate what a differentiated classroom does and does not look like.

-----. *The Differentiated Classroom: Responding to the Needs of All Learners*. Alexandria, ASCD, 1999.

In this book, Tomlinson discusses the what, how, and why of differentiation, and provides examples from a number of differentiated classrooms.

Tomlinson, Carol Ann, and Caroline Cunningham Eidson. *Differentiation in Practice: A Resource Guide for Differentiating Curriculum, Grades K-5*. Alexandria, VA: ASCD, 2003.

This resource provides a brief primer on differentiation, as well as six differentiated units of instruction for grades K-5: two language arts units, two mathematics units, one science unit, and one social studies unit.

-----. *Differentiation in Practice: A Resource Guide for Differentiating Curriculum, Grades 5-9*. Alexandria, VA: ASCD, 2003.

This resource provides a brief primer on differentiation, as well as six differentiated units of instruction for grades 5-9: one language arts unit, one mathematics unit, one science unit, two social studies units, and one French unit.

-----. *Differentiation in Practice: A Resource Guide for Differentiating Curriculum, Grades 9-12*. Alexandria, VA: ASCD, 2005.

This resource is scheduled to be published in August of 2005.

Mathematics

Danielson, Charlotte. *A Collection of Performance Tasks and Rubrics: Middle School Mathematics.* Larchmont, NY: Eye on Education, 1997.

Illuminations. http:illuminations.nctm.org/index.asp

Intermath. http://www.intermath.uga.gatech.edu

National Library of Virtual Manipulatives. http://nlvm.usu.edu/en/nav/vlibrary.html

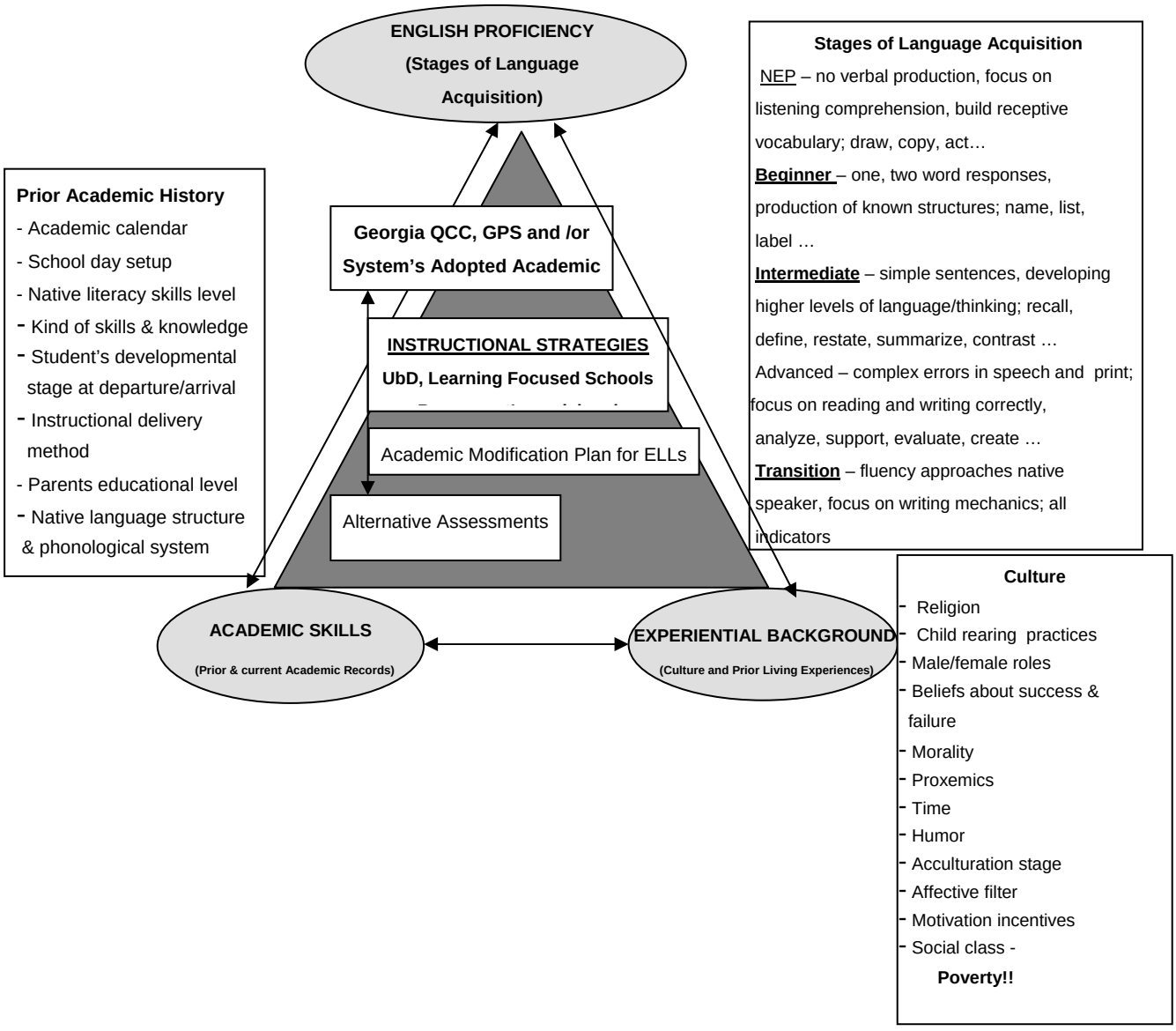
Northey, Sheryn Spencer. *Handbook on Differentiated Instruction for Middle and High Schools.* Larchmont, NY: Eye on Education, 2005.

Van de Walle, John A. *Elementary and Middle School Mathematics: Teaching Developmentally, Fifth Edition.* New York, NY: Longman Press, 2004.

Van de Walle, John A. and LouAnn Lovin. *Teaching Student-Centered Mathematics: Grades K-2.* Boston, MA: Pearson Allyn & Bacon, 2006.

Pre-Assessing the English Language Learner

Framework for Understanding the Learning of PHLOTE & ELL Students: Who Am I Teaching?



Instructional Accommodations for ELLs

Accommodations for ELLS are appropriate and effective only to the level that these match the English language learners proficiency in English, prior academic knowledge and cultural learning patterns.

- **give tests orally rather than in written form**
- **give more time to complete**
- **assignments**
- **allow same-language buddy to assist**
- **require fewer responses to demonstrate mastery**
- **permit incomplete sentences in responses**
- **permit ungrammatically correct sentences in responses**
- **provide lower level text on content material**
- **provide video on content material**
- **provide text on tape**
- **highlight key points**
- **reduce number of key points that student is responsible for knowing**
- **give advanced organizers/study guides**
- **permit open book tests**
- **use graphic organizers**
- **give written instructions as well as oral**
- **make a written record of instruction and display it on chart paper**
- **take time to develop students' prior knowledge of new topics**
- **increase % of student talk about topic (more discussions)**
- **break students into small groups for discussion**
- **plan for group work**
- **use demonstrations when possible**
- **present model of work done well at the beginning of the assignment**
- **use hands-on activities when possible**
- **give sufficient wait time after asking questions**
- **adapt homework requirements to reflect stage of language development**
- **use performance based assessment when possible**
- **adapt project/assignment requirements so students can participate**
- **provide learning centers (language masters, books on tape, magazines for classifying and developing picture dictionaries, language based games)**
- **provide computer time (phonics software, *Kidspiration* graphic organizer software, internet)**
- **seat student near teacher or positive role models**
- **relate content to real life**
- **present tasks from easy to hard**
- **reduce details needed to learn main concepts**

- **use simpler vocabulary or paraphrase**
- **provide additional examples**
- **pair verbal directions with visual clues**
- **look at students when talking**
- **use audio-visual aids frequently**
- **provide student with outline of lesson notes**
- **use peer assisted note taking**
- **use role-playing**
- **use games**
- **provide self-checking materials**
- **use different colors for worksheets**
- **use enlarged type on worksheets**
- **reduce the length or amount of work**
- **mark only correct answers**
- **do NOT write the name of a Korean student in red...it means death**
- **give short quizzes/avoid long tests**
- **allow the use of a dictionary during tests**
- **allow student to take tests until passes/emphasize mastery**

Georgia Department of Education, GPS Differentiation Menu

For students who have difficulty with ***writing/composing written material***:**

- cooperative learning groups
- word processing application
- dictation to a scribe or onto a tape
- demonstrate/role play
- oral responses, presentation, and assessments
- multi-media presentation
- graphic organizer
- extended time on timed tasks
- word prediction software
- *Co-Writer, Write Out Loud, Dragon Naturally Speaking,* or other software
- voice output computer programs
- spell check/grammar check (not allowed on standardized tests)
- task item rubrics
- teacher prepared format
- bread work into manageable parts
- individual or small group test taking
- story starters
- sentence starters
- outlines
- tape recorded essays and oral presentations
- voice activated software
- portable word processor
- prewriting conference/prewriting activities
- illustrations
- K-W-L chart
- provide sample work
- debates
- proofreading checklist
- word bank/word wall
- matrix usage
- note taking assistance
- provide student with key words on essay tests
- abbreviate assignments
- adapted writing tools or other assistive technology, as appropriate

For students who have difficulty with ***reading/accessing written material***:**

- cooperative learning groups/group discussion
- extended time on timed tasks
- voice output computer programs
- talking dictionaries

- break work into manageable parts/presentation of small chunks of a passage
- individual or small group test taking
- testing with reader or scanable text readers
- books on tape/listening to recording/viewing film version of story
- text read to the student by adult or peer
- reading guides (highlighted text, summaries, etc.)
- Language Master
- tracking light or other tracking device
- colored overlays
- computer generated books
- answer "yes/no" questions for comprehension checks
- choral reading
- pre-reading summary
- electronic text (text reader)
- oral (or audio) presentation to student
- teacher introduction of vocabulary words
- paired reading
- picture cues
- illustrations to show comprehension
- *CoWriter, Write Out Loud*, other software
- K-W-L chart
- previewing topics to introduce vocabulary and key concepts
- listening guide to facilitate note taking
- links to prior knowledge/personal experience
- debates
- word bank/word wall
- other assistive technology, as appropriate

For students who have difficulty ***speaking*:

- sign language interpreter/transliterator
- augmentative communication devices
- communication boards
- cooperative learning groups
- usage of other preferred means of communication
- demonstrate/play act tasks
- picture symbol program
- object symbols
- voice output computer programs
- object symbols
- voice output computer programs
- break work into manageable parts
- provide time to respond
- ask "yes/no" questions
- indicating correct answer by pointing
- assign written rather than oral reports

- avoid situations that create pressure
- other assistive technology, as appropriate

For students who have difficulty ***listening***:**

- cooperative learning groups
- visual presentation using computer software, such as *PowerPoint* or *Inspiration*
- break work into manageable parts
- repeat, rephrase, simplify statements and instructions
- provide time to respond
- use of literal, concrete speech
- visual aids
- preferential seating
- note taking assistance (copy or notes/note-taking guides/note taker)
- have student repeat instructions
- reinforce oral instructions with written instructions
- assistive technology, as appropriate

For students who have difficulty with mobility:

- cooperative learning groups
- switch use
- touch screen
- modified keyboards
- extended time on timed tasks (or waive timed tasks)
- modified handwriting and/or grid paper
- weighted pencils and other motoric devices
- slant board or wedge
- magnets, tape, or other paper stabilizers
- stabilized materials
- break work into manageable parts
- individual or small group test taking
- provide time to respond
- page turner
- flexible schedule/scheduled rest breaks
- provide assistance in manipulating classroom and personal materials
- note taking assistance
- adaptive or special furniture
- dictation to a scribe or onto a tape
- other assistive technology, as appropriate

For students who have difficulty attending to ***task***:**

- cooperative learning groups with specific tasks assigned
- rubrics
- graphic organizers
- extended time on timed tasks
- break work into manageable parts

- individual or small group test taking
- task analysis
- task analysis graphically displayed
- proximity control
- visual, verbal, and tactile cues
- gain student's attention before delivery of information
- flexible schedule/scheduled rest breaks
- preferential seating
- note taking assistance
- provide study guides for tests
- have student repeat instructions
- regular notebook/agenda checks
- give abbreviated assignments
- set time allotments for tasks
- organizer/daily planner/homework notebook/folders
- fewer items on each page
- allow students to mark answers in workbooks and test booklets
- select optimal time of day for assessments
- provide study carrel or other quiet work space with minimal distractions
- assistive technology, as appropriate

For students who have difficulty with ***organizations/study skills***:**

- cooperative learning groups
- graphic organizers
- extended time on timed tasks
- break work into manageable parts
- individual or small group test taking
- task analysis
- task analysis graphically displayed
- organizer/daily planner/homework notebook/folders
- provide time to respond
- preferential seating
- provide sample work
- task item rubrics
- provide study guides for tests
- have student repeat instructions
- regular notebook/agenda checks
- set time allotments for task
- fewer items on each page
- provide study carrel or other quiet work space with minimal distractions
- provide books to remain at home
- establish and post daily routines
- allow students to mark answers in workbooks and test booklets
- assistive technology, as appropriate

For students who are ***Deaf/Hard of Hearing*:

- sign language interpreter/transliterator
- amplification equipment
- sound-treated classrooms/special acoustics
- visual presentation using computer software, such as *PowerPoint* or *Inspiration*
- highlighted vocabulary
- closed captioning for viewing movies and other video presentations
- cooperative learning groups
- demonstrate/play act tasks
- voice output computer programs
- individual or small group test taking
- give short, specific verbal instructions
- story webs
- story starters
- *Write Out Loud, CoWriter,* or other software
- peer scribe
- note taking assistance
- provision of class notes with critical information, test questions, and highlighted vocabulary
- preferential seating
- refrain from speaking with back turned to students
- provide a work space with minimal noise
- other communication aids (assistive technology), as appropriate

For students who are ***Visually Impaired*:

- Braille text/Braille writer
- enlarged print
- print with optical devices
- tactile symbols
- calendar system
- auditory and electronic formats
- dark or raised line paper
- cooperative learning groups
- slant board
- individual or small group test taking
- low vision devices/magnifying equipment
- screen readers/text scanners
- audiotaped directions and text (Talking Books for the Blind)
- word processing program with voice output
- electronic Braille note takers
- positioning in class away from glare
- black print handouts
- primary typewriter
- preferential seating
- usage of grid paper

- special or adapted lighting
- other alternate formats, communication aids, or assistive technology, as appropriate

Student-Created Products

Verbal	riddle	filmstrip	transparency	improvisation
anecdote	role-play	flag	travel ad	instrument
audio recording	song	flashcard	travel log	invention
ballad	speech	flip chart	tree chart	jigsaw puzzle
book report	story telling	flowchart	video tape	kite
campaign speech	survey	game	wall hanging	laboratory
characterrization		graphic	weather map	learning center
choral reading	**Visual**	greeting card	weaving	macramé
cinquain	advertisement	hieroglyphic	web	mime
comedy act	CD cover	icon	web page	mobile
comparison	anagram	id chart	window shade	model
conference	animation	illustration	word game	origami
couplet	annotated biblio.	layout	word search	parallel play
debate	area graph	map		paper mache
description	artifact collection	mask	**Kinesthetic**	play
dialog	award	mobile	apparatus	prototype
discussion	banner	mosaic	aquarium	puppet
documentary	bar graph	movie	artifacts	finger puppet
dramatization	blueprint	newscast	card game	marionette
explanation	book jacket	outline	cardboard relief	hand puppet
fairy tale/tall tale	booklet	painting	ceramics	puppet show
free verse	bookmark	pattern	charade	puzzle
interview	brochure	pennant	circuit boards	quilt
jingle	bulletin board	photo essay	clothing	relief rubbing
joke	calendar	photograph	collage	role play
lecture	cardboard relief	picture dictionary	collection	sand casting
lesson	cartoon	picture story	dance	scavenger hunt
limerick	chart	pie chart	demonstration	service
mock interview	checklist	playing card	discovery center	sewing cards
monologue	collage	print	display	shadow box
myth	collection	puzzle	dramatization	simulation
newscast	comic book	scatter graph	equipment	skit
nursery rhyme	costume	scenario	etching	soap sculpture
oral report	cross-section	scrap book	experiment	stage set
panel discussion	crossword puzzle	scroll	fair	stitchery
quatrain	design	sign	food	terrarium
radio show	diagram	silk screen	furniture	tie-dye
radio commercial	diorama	slide show	gadget	tool
rap	display	stencil	game	toy
recorded dialogue	drawing	TV commercial	hat	uniform
rhyme	film	timeline	imaginary play	vehicle
weaving	dialog	letter to editor	patent	riddle
wire sculpture	dictionary	limerick	pen pal	satire
	editorial	list	petition	science fiction

Written	essay	log	plan	scroll
advertisement	fairy tale/tall tale	lyrics	play	short story
autobiography	field manual	magazine	poem	skit
book report	free verse	magazine article	prediction	slogan
booklet	friendly letter	manual	profile	speech
brochure	glossary	metaphor	puppet show	story
business letter	guidebook	myth	questionnaire	story problems
characterization	handbook	new story ending	questions	survey
classified ad	handout	newsletter	radio script	telegram
comic book	interview script	newspaper	rating scale	TV script
comparison	job description	newspaper article	rationale	term paper
computer prog.	joke book	notes	recipe	test
couplet	jot list	novel	reference	travel log
creative writing	journal article	oath	report	vocabulary list
critique	label	outline	research paper	yearbook
database	law	pamphlet	review	
description	lesson plan	parody	rewritten ending	

from GA Dept. of Education *Curriculum Guide for the Education of Gifted Students*, by Jim Curry and John Samara

Product Possibilities

Design a web page	Design political cartoons	Compile a newspaper
Develop a solution to a community problem	Formulate & defend a theory	Develop an exhibit
	Conduct a training session	Conduct an ethnography
Create a public service announcement	Design & teach a class	Write a biography
Write a book	Do a demonstration	Present a photo-essay
Design a game	Present a news report	Hold a press conference
Generate & circulate a petition	Write a new law & plan for its passage	Develop & use a questionnaire
Write a series of letters	Make learning centers	Conduct a debate
Present a mime	Create authentic recipes	Make a video documentary
Design & create a needlework	Choreograph dances	Create a series of illustrations
Lead a symposium	Present a mock trial	Write poems
Build a planetarium	Make a plan	Develop tools
Conduct a series of interviews	Compile & annotate a set of Internet resources	Design or create musical instruments
Develop a collection		Compile a booklet or brochure
Submit writings to a journal, magazine, or newspaper	Design a new product	Draw a set of blueprints
	Write a series of songs	Present a radio program
Interpret through multimedia	Create a subject dictionary	Do a puppet show
Design a structure	Make and carry out a plan	Create a series of wall hangings
Design & conduct an experiment	Design a simulation	Go on an archeological dig
Collect & analyze samples	Write a musical	Design & make costumes
Plan a journey or an odyssey	Develop a museum exhibit	Present an interior monologue
Make an etching or a woodcut	Be a mentor	Generate charts or diagrams to explain ideas
Writer letters to the editor	Write or produce a play	

Carol Ann Tomlinson, How to Differentiate in a Mixed-Ability Classroom, 2nd ed., Alexandria, ASCD, 2001, 89.

Assignments for Days 6 and 7 of GPS Training

For Day 6 for all grade levels and all content areas:

Each participant should bring a student work sample to Day 6 of training. This sample should include 4 copies of the student work, 1 copy of the assignment that generated the work including the standard(s) being assessed via this student work, and 1 copy of each of the two permission forms (teacher permission form and student/parent permission form). These forms are in the Participant's Guide for Day 6 of the training.

For Day 7 for all grade levels and all content areas:

As you work to implement the GPS standards this first year, please record your experiences in a notebook, journal, or other calendar format. Note any tasks, strategies, assessments, etc., that worked especially well; critical comments about particular standards (e.g., gaps that need filling, elements that are problematic, terms that need defining, etc.); suggestions for teachers/instructional leaders in Phase II who will be implementing the following year; thoughts or ideas about the second year of your implementation; etc. Please have this available for your Day 7 of training which will take place online. The State Board of Education will be reviewing the GPS each year, and your comments will provide information for this review, as well as topics for discussion in training.

Permission Forms for Student Work

CONSENT AND ASSIGNMENT

This Consent and Assignment (the "Assignment") is effective when signed by the undersigned Georgia educator ("Educator") and is between Educator and the Georgia Department of Education (the "GDOE"). For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree:

1. GDOE gratefully acknowledges the contribution Educator is hereby making to GDOE of the original work product (the "Work Product") created, developed, worked on or revised by Educator in connection with GDOE's Georgia Performance Standards Project (the "Project"). So that GDOE may fully use the Work Product in any manner it sees fit, including making copies, modifications and derivative works, Educator hereby fully and unconditionally transfers, assigns and conveys to GDOE all of Educator's copyright, ownership interests and other intellectual property rights in the Work Product (collectively, the "Intellectual Property Rights"). Educator further agrees that GDOE may publicly recognize and acknowledge Educator's contribution to, and involvement in, the Project.

2. This Assignment is governed by Georgia law, can only be amended if both parties do so in writing, is assignable solely by GDOE and supersedes any contrary oral or written agreement or understanding. Educator grants to GDOE the power and authority to execute any documentation deemed necessary by GDOE to register or protect the Work Product or Intellectual Property Rights therein or complete the full transfer of the Work Product and Intellectual Property Rights to GDOE which is the purpose of this Assignment.

"Educator"
Name:

Signature:

_____

Print:

_____

"GDOE"

Georgia Department of Education

By:

_____

Title:

_____

Date:

_____

CONSENT AND ASSIGNMENT

This Consent and Assignment (the "Assignment") is effective when signed by the undersigned legal guardian ("Guardian") on behalf of the Guardian and minor Georgia student named below ("Student"), and is among Guardian, Student and the Georgia Department of Education (the "GDOE"). For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree:

1. GDOE gratefully acknowledges the contribution Student and Guardian are hereby making to GDOE of the original work product (the "Work Product") created, developed, worked on or revised by Student. So that GDOE may fully use the Work Product in any manner it sees fit in connection with GDOE's Georgia Performance Standards Project (the "Project"), including making copies, modifications and derivative works, Guardian on behalf of Guardian and Student (and their heirs and successors) hereby fully and unconditionally transfer, assign and convey to GDOE all of Student's and Guardian's copyright, ownership interests and other intellectual property rights in the Work Product (collectively, the "Intellectual Property Rights"). Guardian further agrees that GDOE may publicly recognize and acknowledge Student's contribution to, and involvement in, the Project.

2. This Assignment is governed by Georgia law, can only be amended if both parties do so in writing, is assignable solely by GDOE and supersedes any contrary oral or written agreement or understanding. Student grants to GDOE the power and authority to execute any documentation deemed necessary by GDOE to register or protect the Work Product or Intellectual Property Rights therein or complete the full transfer of the Work Product and Intellectual Property Rights to GDOE which is the purpose of this Assignment.

"Guardian"

Signature:

_____

Print Name:

_____

Guardian's Relationship to Minor:

_____

Print Minor's Name:

_____

"GDOE"

Georgia Department of Education

By:

_____

Title:

_____

Date:

_____

NOTES