

## **Training for the New Georgia Performance Standards**

Days 6: Differentiation

Participant's Guide General Curriculum

We will lead the nation in improving student achievement.

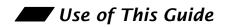
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## Acknowledgements

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

For more information on this or other GPS training modules, please contact Gerald Boyd at (404) 463-1933 or gboyd@doe.k12.ga.us.



The module materials, including a Leader'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.

📕 Agenda

This is a one-day course, with approximately 6 hours of instructional time.

Prior Preparation—Participants

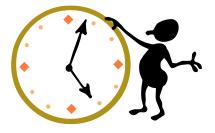
- Read Carol Ann Tomlinson's "Mapping a Route Toward Differentiated Instruction." Educational Leadership 57.1 (Sept. 1999): 12-16. <u>http://pdonline.ascd.org/pd\_online/diffinstr/el199909\_tomlinson.html</u>.
- > Bring a copy of an instructional unit for a class you are currently teaching.

- Calvin's Day at School
- > Defining Differentiation, An Introduction
- > The Three Stages of Standards-Based Education, A Review
- Looking Inside Our Classrooms

- > Overview of What, How, and Why of Differentiation
- Guided Practice Analyzing a Differentiated Task
- Differentiation Stratego: A Reality Game
- > True/False Quiz: What Does Differentiation Look Like?

The Teacher's Role in a Differentiated Classroom......1 hour

- Rethinking Our Roles
- Setting Personal Goals for Differentiating





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 standardsbased education process.
- 2. Explain key elements in planning for differentiation.
- 3. Describe and develop procedures for differentiating instruction in a flexible classroom.
- 4. Describe the roles of the teacher in a differentiated classroom.
- 5. Set individual goals for differentiating instruction in each classroom.

## 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 <u>http://www.glc.k12.ga.us/contact/contact.asp?groupname=Gifted+Education</u>

#### For specialists at the Georgia Department of Education:

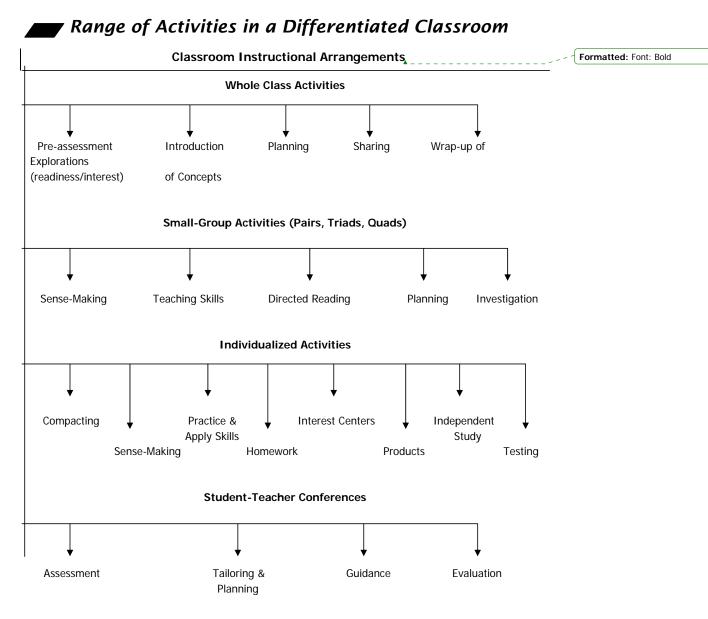
English Language Learners—Victoria Webbert <u>vwebbert@doe.k12.ga.us</u> Gifted and Talented—Dr. Sally Krisel <u>skrisel@doe.k12.ga.us</u> Exceptional Students (Special Education)—Deborah Keane <u>dkeane@doe.k12.ga.us</u>

# 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 in your practice throughout the unit, the smiley face if you've taken this assumption into consideration in some way for this unit, and the question mark if you need to think about your practice in terms of this assumption.

The Underlying Assumption	\$ $\bigcirc$	?
1. I have planned this unit to accommodate multiple and varied learning needs (social as well as cognitive), rather than attempting to accommodate them after student frustration or failure.		
<ul> <li>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.</li> </ul>		
<ol> <li>I interact with each student with positive regard and positive expectations.</li> <li>I recognize every student has both talents and areas of need, and I</li> </ol>		
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 this unit 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 during this unit.		
7. I find ways to provide access for all students to meaningful and powerful ideas, information, and skills in this unit rather than reducing the standards, watering down the curriculum, or assigning busy work.		
8. I use multiple methods in this unit to engage students in active learning. Although I may employ whole-class instruction, I know that differentiation does not take place during whole class 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 from "The Facilitator's Guide," *At Work in the Differentiated Classroom*, Alexandria: ASCD, 2001, 57-58.

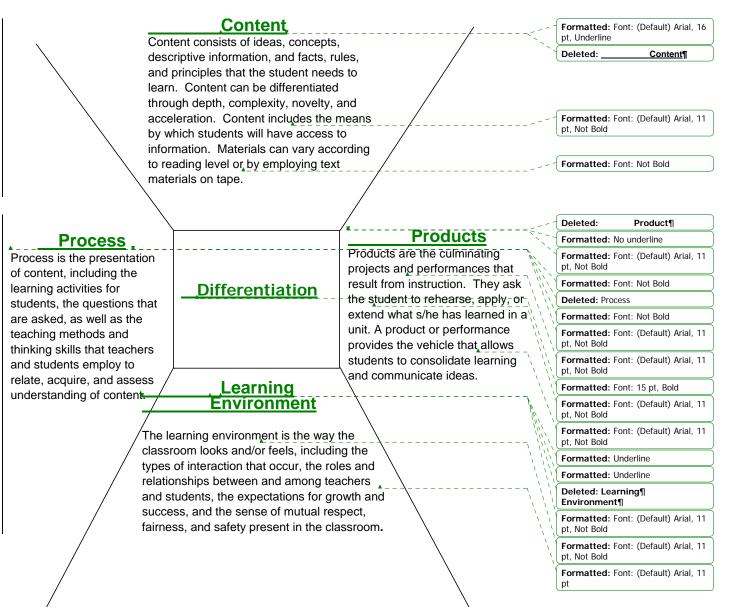


Carol Ann Tomlinson, How to Differentiate in Mixed-Ability Classrooms, 2nd ed., Alexandria: ASCD, 2001, 25.

## 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
- $\checkmark~$  show of hands to determine understanding: every pupil response
- ✓ drawing related to topic or content
- ✓ standardized test information
- ✓ reader response survey
- ✓ anticipation journals

## How to Differentiate



## The Equalizer

Concrete to	(representations, ideas, applications, materials)
Simple to	(resources, research, issues, problems, skills, goals)
Basic to	(information, ideas, materials, applications)
Single facets to (directions, pi	
Smaller leaps to	(application, insight, transfer)
More structured to	more open (solutions, decisions, approaches)
Less independenc	e to greater independence (planning, designing, monitoring)
Slow to	(pace of study, pace of thought)

Tomlinson, 1995

## Guided Practice

#### Example 1: Secondary English Language Arts

#### ELA10RL3 The student deepens understanding of literary works by relating them to contemporary context or historical background, as well as to works from other time periods. The student

- a. Relates a literary work to non-literary documents and/or other texts from its literary period.
- b. Relates a literary work to non-literary documents and/or other texts relevant to its historical setting.

#### Sample Task for ELA10RL3

The student researches an archetypal story (e.g., Cinderella, or Little Red Riding Hood) as it changes over time and across cultures, relates the various versions to their contemporary contexts and/or historical backgrounds, classifies the various versions as to their purpose (e.g., to entertain, to instruct, to promote/support cultural or societal values) then presents the results of this research in a verbal or written form.

#### The Differentiated Tasks:

- 1. Using a teacher-prepared graphic organizer, the student works with two peers to analyze the characters and events in three, pre-selected versions of an archetypal story (e.g., Cinderella, or Little Red Riding Hood). Still working in the group, the student matches these stories to three historical and/or cultural scenarios provided in his/her learning packet. Each student in the group then takes one of the stories and explains to the others why it is representative of the period or culture in the chosen scenario. Next, the students determine the purpose of each of the three stories (e.g., to entertain, to instruct, to promote/support cultural or societal values). Finally, each student individually rewrites one of the stories so that it reflects one or more characteristics of the time and place in which s/he lives.
- 2. The student meets with two peers, and each selects three different versions of the same story from a number of versions provided by the teacher. Each student then uses a number of resources provided by the teacher to research the time and place of production for each of his/her versions of the story. The students then meet together to select from several sample graphic organizers the one that can best represent the connections between the stories they read and the results of their research. Next the students categorize all their stories according to purpose (e.g., to entertain, to instruct, to promote/support cultural or societal values) and specify the reason(s) why each story best fits in the specified category. Finally, each student composes a dialogue between a

character or characters from two different versions of the story; this dialogue should demonstrate the student's understanding of the cultural and/or historical differences between the two versions of the story.

3. The student independently researches an archetypal story (e.g., Cinderella, or Little Red Riding Hood) in three different versions that s/he selects. These versions may be from different time periods or from different parts of the world. The student then prepares an original chart or diagram to compare and contrast the major elements of each story. Next, the student researches the time and place in which each of the stories was written. The student then meets with two peers to discuss connections between the time and place of their stories' production and the differing characteristics of the stories, including the reasons why each was written (e.g., to entertain, to instruct, to promote/support cultural or societal values). Finally, each student focuses on one or more characters from the story s/he researched and creates a cartoon or a comic strip that parodies some event from the time in which s/he lives.

#### Example 2: Seventh-grade Science

## S7L3: Students will recognize how biological traits are passed on to successive generations.

a. Explain the role of genes and chromosomes in the process of inheriting a specific trait.

**Sample Task for S7L3:** Scientists have found that certain traits tend to be more dominant than others. Some traits are dominant and others are recessive. A dominant trait has a greater probability of showing up in successive generations. Gregor Mendel studied peas and used charts to explain his findings. Research Mendel and other individuals who study genetics to find out more about their findings. Also, include an explanation of how Punnett squares can be used to explain the probability of inheriting a specific trait. Present the results of your research in verbal or written form.

#### The Differentiated Tasks:

- 1. The student independently researches the work of Gregor Mendel and other scientists that have contributed to the study of genetics. The student prepares a report highlighting the contributions of these scientists and presents the research in the form of a power point presentation to his/her peers. The student prepares several examples of Punnett squares and illustrates how they can be used to reveal inherited traits and probabilities of offspring. Then, each student will design another project designed to explore some aspect of genetics in which he/she has developed an interest in greater depth. The students will submit a project proposal to the teacher. Each student will be responsible for determining the assessment criteria for the project and developing a rubric to be approved by the instructor.
- 2. Using a student generated graphic organizer, the pupil will work with two peers to compare the contributions of Gregor Mendel to two other scientists in the field of genetics. Each student will choose one scientist and prepare a report to present to the class. The students will also be given several Punnett square scenarios to determine the likelihood of a receiving a particular trait. Then, the student will prepare a science fiction story about the passing of traits to successive generations. Students will use the fictional stories to create a story book that would help a younger student understand the most important concepts of how traits may be passed from one generation to another.
- 3. Using a teacher prepared graphic organizer, the student will work with one or more peers to analyze the contributions of Gregor Mendel and one other geneticist. Each student will answer questions pertaining to a specific scientist. Then, the students will be given a table to complete illustrating the similarities and differences between the scientists. Also, each student will fill in the offspring correctly for a labeled Punnett square that contains the mother's genes and the father's genes. Finally, each student will create a cartoon related to inheriting specific traits.

#### Example 3: Sixth-grade Mathematics

<u>Standards</u>	<u>Summary</u>
<u>M6M4</u>	Determine surface area of solid figures.
<u>М6М3с</u>	Estimate the volumes of simple geometric solids.
<u>M6M3d</u>	Solve application problems involving the volume of fundamental solid
	<u>figures.</u>
<u>M6M4</u>	Determine surface area of solid figures.
<u>M6A3</u>	Students will evaluate algebraic expressions, including those with
	<u>exponents.</u>
<u>M6P1a</u>	Build new mathematical knowledge through problem solving.
<u>M6P1b</u>	Solve problems that arise in mathematics and in other contexts.
<u>М6Р2с</u>	Develop and evaluate mathematical arguments and proofs.
<u>M6P4a</u>	Recognize and use connections among mathematical ideas.

#### Sample Task

- 1. Explain what is meant by surface area. What steps would you take to find the surface area of a cylinder?
- 2. One of the major expenses in manufacturing a can is the amount of metal that goes into it. How many square centimeters of metal would be required to manufacture a can that has a diameter of 8 cm and a height of 20 cm? Estimate and then solve.
- 3. Draw a net (pattern) for the manufacturer to use to make the can.
- 4. Use your work in parts a c to write a rule *in words* for finding the surface area of a cylinder. Now write your rule using letters, numbers and mathematical symbols (a formula).
- 5. Michael bakes a round two-layer birthday cake that is to be covered with frosting on the top, sides, and in between the layers. Each layer has a height of 4 cm and diameter of 24 cm. The label on the can of frosting he bought claims that the contents will cover the top and sides of a one-layer rectangular sheet cake that is 32 cm by 22 cm by 4 cm. Will Michael have enough frosting? Show how you know.

#### The Differentiated Tasks:

#### For Advanced Math Students

1. Relate surface area to volume:

- a) A company wants to build individual storage units that are unattached from other units. One of the costs related to the task is painting the units. The management would like to limit the amount of paint needed, thus minimizing surface area, while the customers want the most square footage for storage (volume). Explore different three dimensional shapes to find the best relation between higher volume for customers and lower surface area for management.
- b) Using the skills and knowledge gained from the previous exercise, explore the relationship between cylindrical surface area and cylindrical volume to determine the best ratio between r and h so that you maximize volume while minimizing surface area.
- c) Make a chart of cylindrical formations defined by r + h = 30. (For example, start with r = 1 and h = 29, and the do r = 2 and h = 28 until you get to r = 29 and h = 1.) Calculate the surface area and volume for each cylinder, and then calculate the quotient of the volume and the surface area. What configuration has the highest quotient value? What does this mean? What patterns do you see in the quotient? Why does this pattern exist?
- d) Place the algebraic equation for cylindrical volume over the algebraic equation for cylindrical surface area. Factor out common factors and simplify the equation. What does the simplified polynomial fraction tell you about your results from part c? Can you draw any conclusions from the new equation?

#### For English Language Learners

1. Explain what is meant by surface area. What steps would you take to find the surface area of a cylinder?

In the case of English Language Learner (ELL) always provide the illustration for the word problem and include the placement of the measurements with the illustration. Explain key words and numbers that tell them what to do with the problem i.e. words like explain, surface area, cylinder and "can" which may be problematic due to multiple meanings; can should be recognized by the student as the cylinder and not the verb for ability. For the content area of Math; key words would be, square centimeters, diameter, height, estimate and any other words the teacher finds problematic during pre-assessment. It is an intense problem, probably difficult for all students but a good problem because it hits all facets-the math computation, the concept of the algorithm & formula, direct reference to the concrete and real world basis. Teachers need to make sure these connections are thoroughly addressed. You will find more suggestions below:

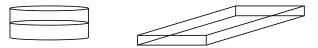
- i) Language characteristics of NEPs
  - (1) minimal comprehension
  - (2) no verbal production
  - (3) communicates with
  - (4) actions and gestures
- ii) Performance indicators for Level 1 "Non English Proficiency (NEP)" students (See pages 36 38).
  - (1) Listen / draw
  - (2) Point / act

- (3) Move / copy
- (4) Mime / circle
- (5) Match / choose

After introducing the concept in class using rich contextual realia; (making input comprehensible by the use of concrete resources, i.e., manipulatives, advanced organizers, illustrations and other), when an English language learner is at the pre-production stage (NEP), the student may show evidence of learning through the kind of behaviors described in the performance indicators above which are silent verbs. For the characteristics of English language learners at other proficiency stages, please see pages 36-38 of GPS Day 6 Module Participant's Guide. *Depending on the information gathered; the task may look similar to this:* 

- (1) Explain task in native language and accept response in native language for NEPs if at all possible, i.e. In your native language explain what is meant by surface area. What steps would you take to find the surface area of a cylinder?
- (2) Student may be allowed to choose the right answers by circling an answer from a multiple choice exercise. Instructions in native language may be needed.
- (3) Student may draw other figures and calculate their surface area to indicate understanding of concept.
- (4) Student may be allowed to measure surface area of other physical figures in the classroom.
- (5) Teacher may need to accept units of measurement for surface area in the metric system due to its prevalence across the world.
- (6) Student may not have had the opportunity to learn (OTL) this concept or may have gone beyond such concepts in native academic setting. Math diagnostic measures that utilize computation measures, instead of application, may provide the teacher a general idea of the student's math prior knowledge. Math is a developmentally sequenced subject; teachers need to know the student's math level to determine the differentiation strategies that may apply.
- 2. One of the major expenses in manufacturing a "can" is the amount of metal that goes into it. How many square centimeters of metal would be required to manufacture a can that has a diameter of 8 cm and a height of 20 cm? Estimate and then solve.
  - Determine English language proficiency, prior Math academic knowledge and culture of the ELL student. According to the information gathered determine the differentiation strategies that apply.
  - ii) For an intermediate ELL (see page 36) the following performance indicators apply:
    - (a) recall summarize
    - (b) retell describe
    - (c) define role-play
    - (d) explain restate
    - (e) compare contrast
  - iii) For an intermediate ELL (see page 36) the following language characteristics apply:(a) increased comprehension

- (b) simple sentences
- (c) some errors in speech
- iv) Teacher may need to asses the student for his/her prior knowledge on the subject.
- v) The student may be able to engage with this task if exposed to concept in native language school setting. Students from some parts of the world may have difficulties showing evidence of their work since in many countries students are encouraged to solve mathematical problems in their heads.
- vi) Teacher may need to accept units of measurement in the metric system due to its prevalence across the world.
- vii) Teacher may need to determine better differentiation strategies based on specific student learning characteristics, taking into consideration the student's English language proficiency stage, the student's prior knowledge and the student's culture.
- 3. Draw a net (pattern) for the manufacturer to use to make the can.
  - Teacher needs to determine differentiation strategies based on specific student learning characteristics, taking in consideration the student's English language proficiency stage, the student's prior knowledge and the student's culture.
  - ii) Buddy assistance may be provided to explain the task.
  - iii) Task may be appropriate for ELLs once initial understanding of task is achieved.
- 4. Use your work in parts a c to write a rule *in words* for finding the surface area of a cylinder. Now write your rule using letters, numbers and mathematical symbols (a formula).
  - i) Teacher needs to determine better differentiation strategies based on specific student learning characteristics taking in consideration the student's English language proficiency stage, the student's prior knowledge and the student's culture.
  - ii) Buddy assistance may be provided to explain the task.
- 5. Michael bakes a round two-layer birthday cake that is to be covered with frosting on the top, sides, and in between the layers. Each layer has a height of 4 cm and diameter of 24 cm. The label on the can of frosting he bought claims that the contents will cover the top and sides of a one-layer rectangular sheet cake that is 32 cm by 22 cm by 4 cm. Will Michael have enough frosting? Show how you know.



- ii) In addition to suggestions provided above, teacher may need to explain or illustrate potentially difficult vocabulary for ELLs i.e. two-layer cake, frosting, label and/or sheet cake.
- iii) Teacher needs to determine better differentiation strategies based on specific student learning characteristics taking in consideration the student's English language proficiency stage, the student's prior knowledge and the student's culture.
- iv) Buddy assistance may be provided to explain the task.
- v) Student may be advanced in English proficiency and gifted in math and then gifted differentiation may apply.

#### Example 4: Fourth-grade English Language Arts

# ELA4R1 The student demonstrates comprehension and shows evidence of a warranted and responsible explanation of a variety of literary and informational texts. For literary texts, the student identifies the characteristics of various genres and produces evidence of reading that:

g. Identifies similarities and differences between the characters or events and theme in a literary work and the actual experiences in an author's life.

#### Sample Task for ELA4R1

The student reads excerpts from a biography/autobiography of an author (such as Beverly Cleary's *A Girl From Yam Hill*) and discusses how an author (such as Beverly Cleary) draws on her personal experiences when writing her fictional texts.

#### The Differentiated Tasks:

- 1. Working in cooperative groups, the students will use graphic organizing software, teacher-made graphic organizers, and/or three dimensional "foldables" to identify the similarities and differences in the literary work and the author's life. Students may use words, pictures, figures, or clip-art to complete their graphic organizers.
- 2. Author Cube Once the cube (See page 21) has been constructed, students will roll it like a die and then complete the task that comes up on the top of the cube. This Author Cube gives students a choice of six different activities in which they identify similarities and differences between the characters, events, and/or themes in a literary work and the actual experiences in the author's life.

of hin en wo tha an au	rite a letter to the author your story. Explain to m/her why you've joyed reading his/her ork. Ask three questions at you'd like to have swered about the thor's choice of words, tting, or plot.	Write an interesting dialogue between the author of your story and the author of another story you've read. Make your dialogue reflect ways in which each author's background affected his/her work.	As an editor of the book you're reading, it's your responsibility to write a blurb about the author for the book jacket. What would you include in this brief (not more than 6 sentences) bio? What are the most important things about your author that a reader would need to know?
		Locate the web site of the author of your story. Read your author's autobiography or biography. Then create a triple Venn diagram to compare and contrast the author, a character in the story, and yourself. Be sure to include likenesses as well as differences.	To assemble this cube, cut around the outside of the figure. Fold between each block and then tape or glue tabs to sides to form a cube.
		Where did your author get the ideas for the story you're reading? Explore the author's website and find out. Then, present your information to your class in an interesting way. What events, people, pets, etc. in your life might provide you with inspiration for a book of your own?	
		Select three quotations from the story you're reading. Explain why your author wrote these statements. How do they relate to the life of your author? What events in the author's life might have caused him/her to write these words?	
			Page 21

## ' What Does Differentiation Look Like, A T/F Quiz

Directions: Mark the item <u>T</u> if it is <u>TRUE</u> for a differentiated classroom or <u>F</u> if it is <u>FALSE</u> 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. All students in the class completing 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. Providing 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. Students participating in respectful work.
- \_\_\_\_\_ 15. Putting students in situations where they don't know the answer- often.
- \_\_\_\_\_ 16. 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. Including a blend of whole class, group, and independent learning.
- \_\_\_\_\_ 22. 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 needs.
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 taken into account.	6. Many learning profile options are provided
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 is the focus of learning.	<ol> <li>Use of essential skills to make sense of key concepts and principles is the focus of learning.</li> </ol>
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 needs.

12. A single text prevails.

13. Single interpretations of ideas and events may be sought.

14. The teacher directs student behavior.

15. The teacher solves problems.

16. A single form of assessment is often used.

12. Multiple materials are provided.

13. Multiple perspectives on ideas and events are routinely sought.

14. The teacher facilitates students' skills at becoming more self-reliant learners.

15. Students help one another and the teacher solve problems.

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.



**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?
- > What low-prep differentiations do I want to start with?
- > What higher-prep differentiations do I want to work toward?

Differentiation:			
What	How	Why	By When

Glossary

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

**Adjusting Questions**—A teacher, in class discussions, tests, and/or homework, adjusts the sorts of questions posed to learners based on their readiness, interests, and learning profile. This strategy is an excellent "get your feet wet" differentiation strategy because it builds on strengths and abilities readily used by most teachers.

**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.

**Carousel Brainstorming**—A strategy where students brainstorm responses to prompts or questions written on butcher paper and placed at five different stations around the room. Students rotate from station to station and discuss their responses with others in their group. Teachers may use carousel brainstorming as a pre-assessment tool or as a review opportunity.

**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**—Agreement reached between one or more students and their teacher; the content specifies learning objectives, activities, resources, deadlines/timelines, assessment procedures, working conditions, and places for signatures. The teacher agrees to allow a student the freedom to pursue an area of special interest; and the student, in turn, agrees to follow certain independent learning conditions.

**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.

**Cubing**—A versatile strategy, similar to a contract, which allows a teacher to plan different activities for different students or groups of students based on student readiness, learning style, and/or interests. The teacher creates a cube—usually different colored cubes--for different

groups of students. On each of the cube's six faces, the teacher describes a different task related to the subject and/or concept being learned.

**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.

**4-MAT**—Teachers plan instruction for each of four learning preferences: mastery, understanding, personal involvement, and synthesis. This is based on the hypothesis that students have one of these four learning preferences. All students participate in all learning formats in order to maximize learning strengths and strengthen the weaker preferences.

**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 varying topics of interest.

**Jigsawing**—A type of collaborative work in which students read and examine a portion of a reading assignment and report what they've learned to the entire group; an effective way to vary content according to complexity or depth of content to match reading readiness levels; a great way to involve students in subject matter presented in text.

**KWL Charts**—A pre-assessment tool consisting of three vertical columns. Students list in one column what they know about a topic or idea and in another column, what they want to know about the topic or idea. Then, after a lesson or series of lessons, they return to the chart to list in the third column what they learned about the topic or idea.

**Most Difficult First**—A very simple first step to full-scale compacting. It is usually used with skill-type activities such as math, grammar, map reading, vocabulary, or spelling. A teacher allows students to demonstrate mastery of the five most difficult problems of an assignment and then to participate in alternate activities without having to do an entire assignment.

**Orbital Studies**—Independent investigations, generally of three to six weeks, which "orbit" or revolve around some facet of the curriculum. Students select their own topics for orbitals and work with guidance and coaching from the teacher to develop more expertise on both the topic and on the process of becoming an independent investigator.

**Personal Agendas**—A personalized list of tasks that a particular student must complete in a specified time; student agendas throughout a class will have similar and dissimilar elements on them.

**Plus-Minus-Interesting Charts**—A device developed by DeBono in which students summarize their findings about a particular topic or idea by listing what's good about it, what's possibly negative about it, and what's interesting about it.

**Product/Project Options**—Students choose the way that they will provide evidence of learning from a variety of options. 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., and ends 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 <u>Role</u>, <u>Audience</u>, <u>Format</u>, and <u>Topic for a particular task</u>. The tasks 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 content or difficulty 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.

**Think-Tac-Toe Extension Menu or Choice Board**—A collection of activities from which a student can choose. It is generally presented in the form of a 3x3 or a 4x4 grid, similar to a tic-tac-toe board, with the center square often allowing for student choice. This format can be applied to extension activities, contracts, study guides, or independent studies. They allow a teacher to differentiate content, process and product according to different levels of student performance/readiness, interests, and learning styles.

**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.

**Vocabulary Web**—A graphic organizer based on a single vocabulary word. The word goes in the center circle; students then define the word, find synonyms and antonyms, write a sentence using the word, create analogies, and analyze the word according to word families, origin, stems, and parts of speech.

**WebQuest**—A programmed, self-contained activity on the Internet that allows students to perform authentic, independent tasks while using the computer. WebQuests give individuals or small groups of learners the opportunity to use research, problem solving, and basic skills as they move through a process of finding out, drawing conclusions about, and developing a product related to a topic or question. Each WebQuest consists of the same five parts: introduction, task, process, resources, and evaluation rubric.

**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. <u>http://ericec.org/ digests/e510.html</u>.

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. <u>http://www.writedesignonline.com/</u> <u>organizers/interact.html#interaction</u>.

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**. <u>http://www.prel.org/products/pc\_/standards-based.htm</u>.

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.

Renzulli Learning Systems: Free Trial. 2005. http://students.renzullilearning.com/.

This site, developed by Renzulli Learning Systems, provides comprehensive enrichment and differentiation activities for students. Beginning by determining an individual student's profile—interests, abilities, preferred style of expression, and learning style this site then matches individual students with a number of enrichment and differentiation opportunities. Although the resource is still in the development stage, this URL offers teachers a free trial opportunity to navigate the site.

Rose, David H., and Meyer, A. *Teaching Every Student in the Digital Age: Universal Design for Learning*. Alexandria: ASCD, 2002.

This introduces a framework for utilizing technology to address the needs of all students and meet the challenges posed by high standards and increased student diversity.

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

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*. 2<sup>nd</sup> 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. <u>http://pdonline.ascd.org/pd\_online/diffinstr/el199909\_tomlinson.html</u>.

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 provides a brief primer on differentiation, as well as nine differentiated units of instruction for grades 9-12: two language arts units, two mathematics units, one science unit, one social studies unit, one humanities unit, one visual arts unit, and one world language unit.



#### An Announcement: SAT Prep Online Course

The Georgia Department of Education (GDOE) is pleased to announce the availability of the College Board's **Official SAT Prep Online Course™** for all students in grades 9-12. The Online SAT Prep Course is another component of our continuing efforts to assist local systems in improving the quality of education for students in Georgia. Available twenty-four hours a day, seven days a week, this program can be integrated into classroom instruction or may be used as a self-paced independent study for students.

The College Board will send specific information regarding the registration of students and educators to each high school principal. The online course is very user-friendly and does not require special training. However, in order to encourage all high schools to fully utilize the course, educators may attend a training session. There will be at least 10 training sessions available throughout the state, and at least one Web cast. The training will include an online demonstration of the course and instruction on maximizing usage of this valuable resource.

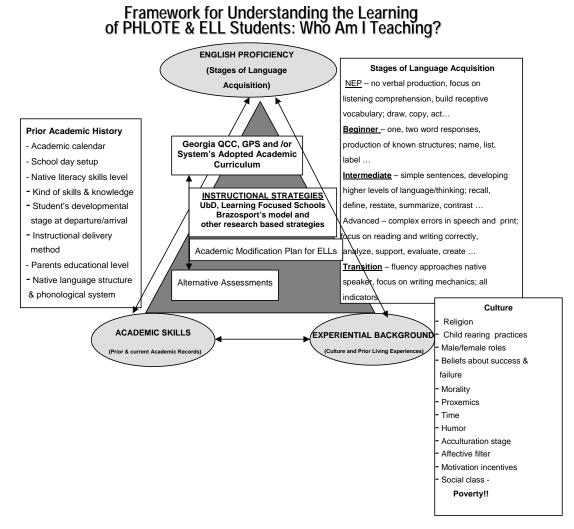
By August 1, 2005, the College Board, the facilitators of the Online SAT Program, will provide information for each high school in your district about the following items:

- 1. Personal access codes for each student in grades 9-12 in each high school
- 2. 18 interactive lessons that focus on critical reading, math, and writing
- 3. 600+ practice questions in critical reading, mathematics, writing
- 4. Explanations of answers to practice test items
- 5. Three full-length timed practice tests for the SAT
- 6. Personalized score reports on tests and quizzes for each student
- 7. Test Reports for the following categories:
  - (A). practice test score by student
  - (B). practice test question and answer by student and by class
  - (C). practice test item type by student
  - (D). practice college success skills by student
  - (E). practice test summary by student and by class
  - (F). practice test current performance by school and by district
  - (G). practice test progress by class, by school, and by district
  - (H). practice test roster by class
- 8. Online essay scoring service
- 9. Twelve-month subscription service for all students and educators.

You will receive information soon from representatives of the GDOE and/or College Board about professional learning classes for facilitators of the SAT Prep Online course in your high schools. We urge each of you to take advantage of this opportunity to improve student achievement on the SAT at no cost to local systems. Thank you for continuing to work toward our goal of leading the nation in improving student achievement. If you have any questions, please contact:

Charlotte Robinson 404-656-6854 crobinso@doe.k12.ga.us

#### Pre-Assessing the English Language Learner



#### © Victoria V. Webbert, 2003

#### 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 s/he passes/emphasize mastery

### Georgia Department of Education, GPS Differentiation Menu

## [Exceptional Students/Special Education]

## 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
- break 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
- break work into manageable parts
- provide time to respond
- ask "yes/no" questions
- allow students to indicate 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 of 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 organization/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 seatingusage 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
characterization	Survey	graphic	weather map	learning center
choral reading	Visual	greeting card	weaving	macramé
cinquain	advertisement	hieroglyphic	web	mime
comedy act	CD cover	icon		mobile
comparison		id chart	web page window shade	model
conference	anagram animation	illustration		origami
	annotated biblio.		word game word search	3
couplet		layout	word search	parallel play
debate	area graph	map	Kinaathatia	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
riddle	dialog	letter to editor	patent	weaving
satire	dictionary	limerick	pen pal	wire sculpture

	editorial	list	petition	science fiction
<u>Written</u>	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	Formulate & defend a theory	Develop an exhibit
problem	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	Design or create musical instruments
Develop a collection	resources	Compile a booklet or brochure
Submit writings to a journal,	Design a new product	Draw a set of blueprints
magazine, or newspaper	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
Writer letters to the editor	Write or produce a play	ideas

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

Assignments for Days 7 and 8 of GPS Training

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

Each participant should bring a student work sample to Day 7 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 8 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 bring this record with you to Day 8 of training. 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 (GPS). 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"		"GDOE"
Signature:		Georgia Department of Education
Print	- Name:	Ву:
		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 (GPS), 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"			"GDOE"
Signature:			Georgia Department of Education
Print	Guardian's	Name:	Ву:
Relationship	to	Minor:	Title:
Print	Minor's	Name:	Date: