GEORGIA DEPARTMENT OF EDUCATION

Kathy Cox, State Superintendent of Schools

Training for the New Georgia Performance Standards

Day 5: Differentiation

Content Facilitator's Guide
Mathematics Grade 8

We will lead the nation in improving student achievement.

Use of This Guide

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.

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

Materials (guides, presentations, etc.) will be available electronically on http://www.georgiastandards.org under the training tab after all trainings of Day 5 have occurred. Consult the trainer for availability.

For more information on this or other GPS training, contact Peggy Pool at (404) 657-9063 or ppool@doe.k12.ga.us or Claire Pierce at (404) 657-7063 or cpierce@doe.k12.ga.us.

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

Special Education
http://www.gadoe.org/ci_exceptional.aspx

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

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Overview

Day 5

By the end of Day 5 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 the 8^{th} grade mathematics GPS along with the expected depth and rigor.
9. Have a deeper understanding of the content addressed within the module.

Module Sequence

Introduction to Differentiation
- Four Corners
- Calvin's Day at School
- "A Logical Exercise" Task

What is Differentiation?
- What is it?
- Standards-Based Education Model
- Self-Assessment

Why and How Do We Differentiate?
- Why do we differentiate?
- How do we differentiate?
- "Acting Out" Unit 3 Task

What Does a Differentiated Classroom Look Like?
- True/False Quiz: What Does Differentiation Look Like?
- "Cholesterol" Units 5 and 7 Task
- Setting Personal Goals for Differentiating

Summary and Field Assignment

Module Materials for Day 5 of Training

Content Facilitator's Kit contents:

- Hard copy of the Content Facilitator's Guide (one for each leader)
- CD containing the Content Facilitator's Guide, Participant's Guide and Power Point presentation of the eighth grade mathematics Day 5 Module.

Other materials needed:

- Name tags
- A variety of colored markers appropriate for flipcharts
- Highlighter markers
- Flipchart paper and stand
- Masking tape to post chart paper
- Colored pencils
- Compasses
- Post-it Notes
- 3x5 lined index cards
- Extra unlined paper
- Blank circle Venn diagram
- Extra grid paper
- Extra graph paper
- Copies of articles
- Student profile cards

Equipment:

- Projection system for slides
- Computer

Days 3 and 4 Follow Up/ Day 5 Preparation

If possible, have participants bring a school copy of the Carol Ann Tomlinson book, *How to Differentiate Instruction in Mixed-Ability Classrooms*. These were sent to schools during Phase I. Also remind them to bring the notebook from Days 1 through 4 of training.

Agenda

Introduction to Differentiation
- Four Corners
- Calvin's Day at School
- "The Logical Exercise" Task

What is Differentiation?
- What is it?
- Standards-Based Education Model
- Self-Assessment

Why and How Do We Differentiate?
- Why do we differentiate?
- How do we differentiate?
- "Acting Out" Unit 3 Task

What Does a Differentiated Classroom Look Like?
- True/False Quiz: What Does Differentiation Look Like?
- "Cholesterol" Units 5 and 7 Task
- Setting Personal Goals for Differentiating

Summary and Field Assignment

Introduction to Differentiation

Overview	In the introduction, the participants share their preconceptions about differentiation and relate these preconceptions to Carol Ann Tomlinson's statements about differentiation. Then, the group reviews Stages One, Two, and Three of the Standards-Based Education Process and examines the importance of differentiation in this process.
Objectives	➢ Define differentiation and explain the importance of differentiation in the standards-based education process. ➢ Explain key elements in planning for differentiation.
Activities	➢ Four Corners ➢ Calvin's Day at School ➢ "The Logical Exercise" Unit 4 Task
Materials	➢ Overhead projector or computer and LCD projector ➢ Transparencies or PowerPoint presentation ➢ Participant's Guide ➢ Blank circle Venn diagram

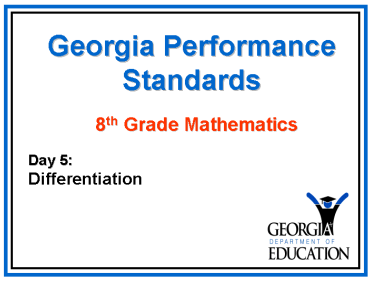
Prior to the arrival of the participants, be sure to have the modules, nametags, index cards, blank paper, blank circle Venn diagrams, grid paper, graph paper, and student profile cards on the table.

Containers with additional materials such as markers, highlighters, masking/painter's tape, Post-It notes, colored pencils, compasses, and straight edges should also be on each table.

Copies of the articles that will be used later in the day should be off to the side and ready to distribute.

Title Slide

Also, have the parking lot along with today's goals posted.



Show the title slide and welcome participants to training.

This is a good time for participants to briefly introduce themselves.

Name tags

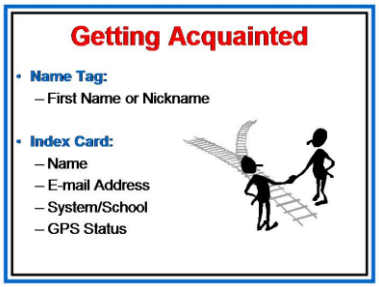
Ask participants to put their name on a name tag and to fill out an index card indicating their name, e-mail address, school/system and "GPS status". The "GPS status" is to explain their previous GPS training. In other words:

Lined 3x5 index cards

- Did they attend last year's training in Days 1-4 for mathematics? Have they attended redelivery of the training?
- Have they heard about the GPS?
- Is there no previous experience with GPS?

This may be done on a sign in sheet instead of index cards.

Slides *Getting Acquainted* and *Contact information*



Collect the index cards or sign-in sheet when completed.

What Do You Know and What Do You Want to Know: Large Group Activity

Four Corners

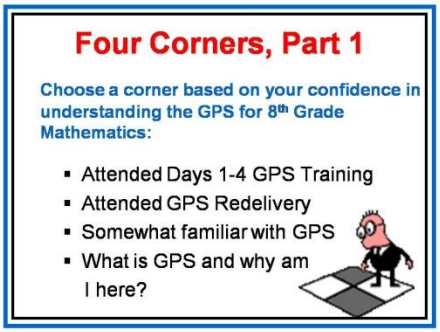
Flipcharts, markers

Everyone will stand after the corners have been labeled.

Show the 'Four Corners' slides.

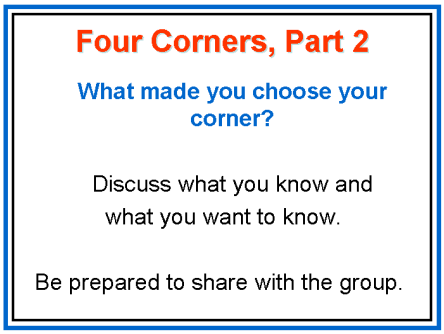
Ask participants to move to the corner that most closely matches their confidence level in understanding the GPS.

Slide
Four Corners, Part 1



Show slide, *Four Corners, Part 2.* Ask what made them choose that particular corner. Have them discuss among themselves about what they know and want to know. One person from each of the four corners should be designated prior to the discussion as the 'scribe'. That person will summarize the group's concerns and celebrations.

Slide
Four Corners, Part 2



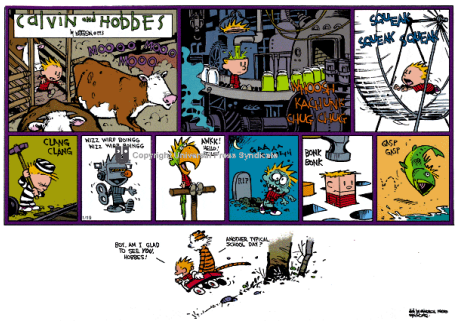
During the sharing, someone should record the responses on posted chart paper.

Briefly note any patterns that you see and/or any items that may be listed on both sides of the room, then tell participants that we will get back to these lists throughout the day.

➢ **Let's take a minute to view a Calvin and Hobbes** comic strip.

Slide
Calvin & Hobbes cartoon

Talk about one section at a time and allow participants to identify with Calvin's feelings.



What general statements might we make about Calvin's day? [Allow time for participants to respond.]

Responses may include things like you have been herded along, goo has been poured into your brain, you have been running in circles, you are a prisoner doing manual labor, you are just a robot going through programmed motions, you are just repeating what you have heard, you are scared to death, you have been forced into a mold, you were a fish out of water.

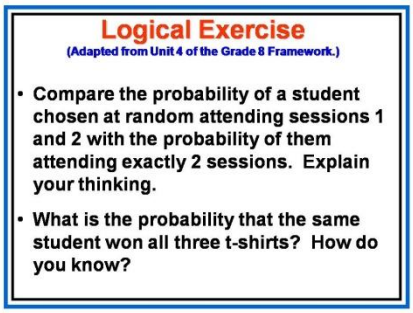
Can you imagine how a student might feel like this sometimes at school?

➢ **Does it appear that Calvin's educational needs are being met? Why or why not?** [Allow time for participants to respond.]

PG page 35
FG page 57

We have not done any math yet today!
Take a look at the "Logical Exercise" task found in the back of your guide.

Slide
Logical Exercise

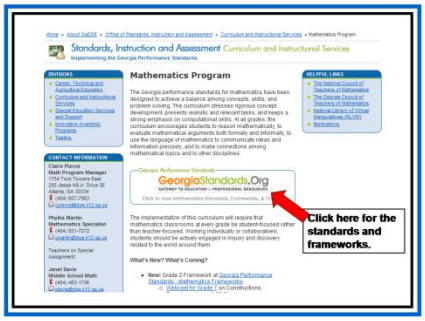


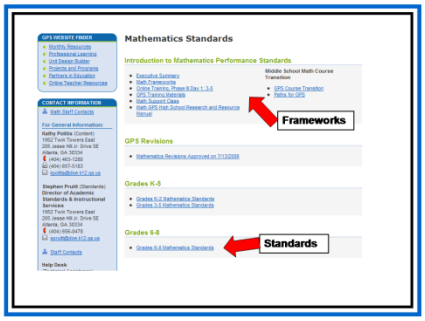
Participants will complete this task in groups of four. Afterwards, they will discuss and share their results and **discuss the standards** that are addressed within the task.

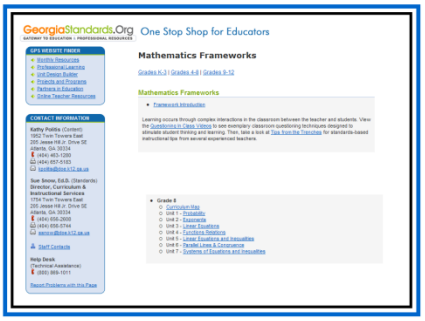
Since this task comes from Unit 4 of the Grade 8 Framework, this is an excellent time to introduce the DOE Math Webpage and georgiastandards.org.

Participants should understand how to find the mathematics webpage; along with the standards, frameworks, parent letters, webcasts and other items to come.

Slides
gadoe.org
georgiastandards.org







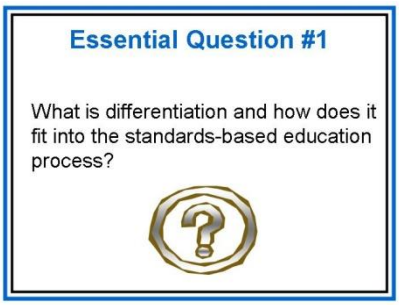
Bookmarking the Mathematics Web Page is highly recommended. With a direct link to georgiastandards.org and other valuable websites, it will be easy to see what updates and changes have been made at a glance.

- **Frameworks**
- **Parent letters**
- **Concept maps**
- **Webcasts**
- **Videos**

What is Differentiation?	
Overview	This section will focus on the definition of differentiation. Topics of discussion will include what it is and how it relates to standards-based teaching and learning. Participants will have an opportunity to self-assess themselves about how they differentiate instruction. The essential principles of differentiation will be summarized.
Objectives	➢ Define differentiation and explain the importance of differentiation in the standards-based process. ➢ Set individual goals for differentiating instruction in each classroom.
Activities	➢ What is it? ➢ Self-Assessment ➢ Task review
Materials	➢ Chart paper and markers ➢ Transparencies or PowerPoint presentation ➢ Participant's Guide

Show slide, Essential Question 1.

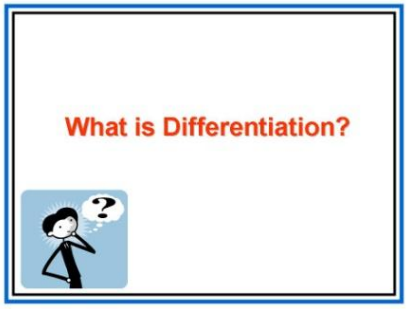
Slide
Essential Question 1



Slide
What is Differentiation?

Defining Differentiation

Show *What is Differentiation?* slide:



Flip chart with responses and concerns.

- This is time for a good discussion with responses posted on chart paper.

- Most groups of teachers will probably mention something similar to: **"In a differentiated classroom we modify curriculum, teaching methods, resources, learning activities, and student products."**

- To better understand what differentiation IS, we may first consider what differentiation IS **NOT**. The power point slides will have each point enter with the click of the mouse to allow for discussion before moving on to the next bullet.

Slide
What Differentiation is NOT…

- **Differentiated instruction is NOT the "Individualized Instruction" of the 1970's.** We had a totally different lesson plan for each of our 30+ students within the classroom and teachers quickly became exhausted. In order to provide different entry levels for every student, instruction was divided into skill fragments and learning became unrelated.

- **Differentiated instruction is NOT chaotic.** Classroom management is essential. Student movement and talking should have a purpose.

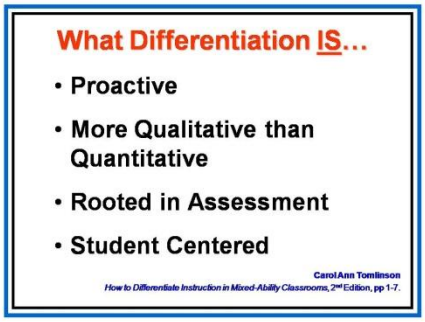
- **Differentiated instruction is NOT just another way to homogeneously group students.** There should be many different group configurations over time. We will talk more about flexible grouping later today.

- **Differentiated instruction is NOT just "tailoring the same suit of clothes".** We should not just give a struggling student easier problems or an advanced learner more challenging problems. Nor should we grade students differently based on perceived ability and effort. In other words, trying to stretch something too small or take-in something too large, we should get the right fit for the given time.

- **Now that we understand what differentiation is NOT, we can move on to understanding what differentiation IS.**

Slide
What Differentiation IS…

Show slide.



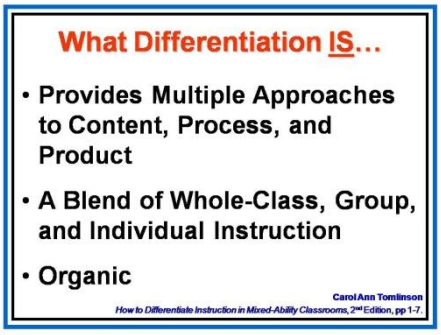
- **Differentiated instruction is PROACTIVE.** Instead of planning a single approach for all students and reactively adjusting because it did not work for many learners, effective differentiation will address a range of learner needs.

- **Differentiated instruction is more QUALITATIVE than quantitative.** It is not correct to assume that differentiating instruction means that the teacher gives some students less to do and others more to do. Adjusting the *quantity* is less effective than adjusting the *nature* of an assignment.

- **Differentiated instruction is ROOTED IN ASSESSMENT.** Teachers should assess their students in a variety of ways throughout the unit. Formative assessment should drive decisions about when, how, and what to differentiate. This should include readiness levels, interests, and learning styles. Lessons should be planned with this knowledge in mind.

- **Differentiated instruction is STUDENT CENTERED.** Students develop enduring understandings when their learning experiences are engaging, relevant, and interesting. Previously learned concepts should be used in the service of new ideas and not all students come to us with the same understandings. Teachers should help students take responsibility for learning by taking the role of a facilitator to guide them rather than telling them everything they need to know.

Slide
What Differentiation IS…



- **Differentiated instruction provides MULTIPLE APPROACHES to content, process, and product.** These three areas will be revisited in depth later today. Content – what students learn (input); Process – how students understand ideas and information; Product – how students show what they know (output).

- **Differentiated instruction is A BLEND of whole-class, group, and individual instruction.** Students should come together to begin a lesson, then break out into small groups or work individually for a short while. They should then come back together to share, plan, or review before breaking out again. This pattern should continue.

- **Differentiated instruction is ORGANIC.** Teachers should monitor the match between learner and learning and make adjustments as needed. They should always be learning more about their students along with learning more ways to make the classroom better for their students.

Reference the Tomlinson resource Also mention the Northey book that trainers received during sixth grade training last year.

These ideas are from the book that was given to the Grade 6 GPS training participants, *How to Differentiate Instruction in Mixed-Ability Classrooms* by Carol Ann Tomlinson. Take a look at the list of recommended viewings/readings/websites found in the Participants' Guide.

Slide
Come to the Edge

Show slide, *Apolonaire's quote*.

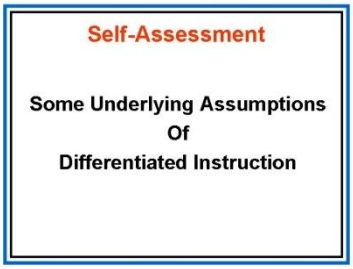
What are your thoughts, reactions and feelings about this quote?

How does it relate to what we have been discussing about access to all students in the classroom?

- **In the past few minutes we have touched on a number of ideas about diverse learners and differentiated instruction, and we will spend the remainder of today exploring many of these ideas. However, a thorough and comprehensive study of differentiation is beyond the scope of our workshop today. ASCD has prepared a series of materials on differentiation that will complement and enhance the information from today's training. This series, *At Work in the Differentiated Classroom*, Alexandria, VA: ASCD, 2001, includes three VHS tapes and a Facilitator's Guide. The videos provide clips of real differentiated classrooms and include commentary by Carol Ann Tomlinson. The facilitator's guide suggests formats for utilizing the videos and other materials. One set of these materials was provided to each local school system and each RESA. In addition, each system received one copy of *Differentiation in Practice, Grades K-5* and one copy of *Differentiation in Practice, Grades 5-9*. I strongly recommend that you use these resources to further your conceptual understanding of differentiation.**

Slide
Self-Assessment

Self-Assessment



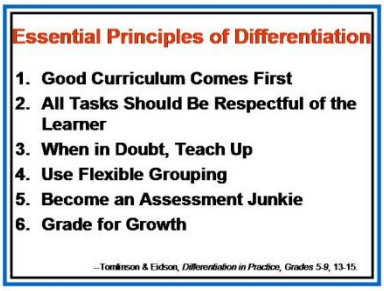
Self-Assessment
PG page 38
FG page 60
"*Some Underlying Assumptions of Differentiated Instruction*"

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. You have approximately 10 minutes for this activity.

After approximately 10 minutes, say: **This pre-assessment is for your own use, but let's take a moment or two to debrief the activity and relate it to what we've looked at earlier this morning.**

Slide
Essential Principles of Differentiation

Show slide: *Essential Principles of Differentiation.*



Georgia has an exemplary curriculum so we need to take advantage of it!

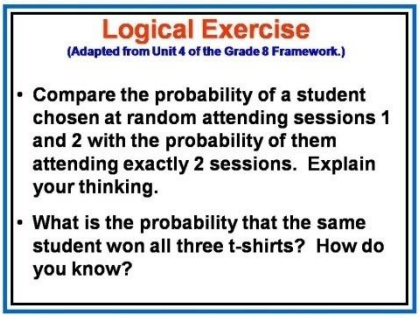
- **We've already discussed the importance of having a rigorous curriculum for all students.**

- **What do you think we mean when we say that "all tasks should be respectful of the learner"?** [Allow participants to respond before going on.]

- **To challenge every learner, Tomlinson says "when in doubt, teach up." What's your response?** [Allow participants to respond before going on.]

Consider the "Logical Exercise" task that we did earlier. Was that a task that allowed for differentiation? If so, in what ways? If not, what could have been done to allow for differentiation?
What questions do you have concerning differentiation?

Slide
Logical Exercise Task



Allow time for discussion.
Record vital points on chart paper and post for reference during the remaining training time for today.

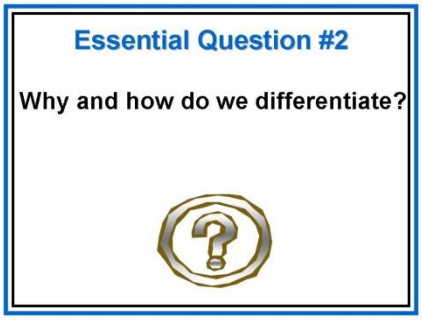
Why and How Do We Differentiate?

Overview	This section will focus on the why, what, and how, of differentiation. Topics of discussion will include the role of the teacher in a differentiated classroom; student readiness, student interests, and mathematical learning styles; ways of differentiating content, process, product, and the learning environment; and access to learning, motivation to learn, and efficiency of learning. Participants will be provided with a guide for differentiating, and they will use this guide along with the information presented to prepare a plan for differentiating a task in a mixed-ability classroom.
Objectives	➢ Describe the roles of the teacher in a differentiated classroom. ➢ Explain key elements in planning for differentiation. ➢ Describe and develop procedures for differentiating instruction in a flexible classroom. ➢ Describe and develop effective classroom management strategies in a differentiated classroom.
Activities	➢ Why do we differentiate? ➢ How do we differentiate? ➢ "Acting Out" Unit 3 Task
Materials	➢ Chart paper and markers ➢ Transparencies or PowerPoint presentation ➢ Participant's Guide ➢ Sticky notes ➢ Straightedges ➢ Compasses ➢ Colored pencils ➢ Extra grid paper ➢ Extra unlined paper

Why and **how** do we differentiate?

Slide
Essential Question 2

Show slide: Essential Question 2.



- **In this section of today's workshop, we will look at a number of aspects of differentiation that will help us make informed decisions about differentiating in our classrooms.**

Slide
Why Do We Differentiate?

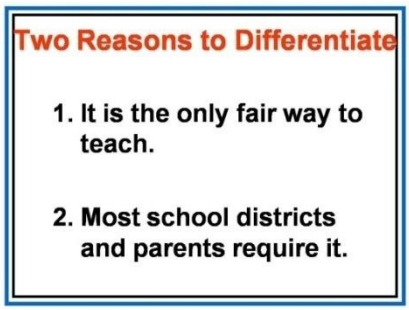
Show slide: Why Do We Differentiate?

List reasons on posted chart paper.

A brief discussion of these reasons should occur. Among the reasons, participants should include something such as access to learning, motivation to learn, and efficiency of learning.

Slide
Two Reasons to Differentiate

Show slide.



The two major reasons to implement differentiation are:

1) **It is the only fair way to teach**
2) **Most school districts and parents insist on it.**

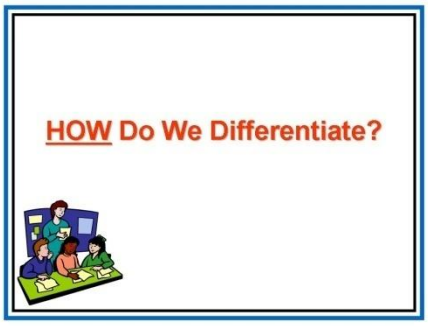
Compare the list with these reasons and allow time for discussion if needed.

Regardless of these reasons, it does not mean that implementing differentiation within the classroom is easy. Many teachers do their best and still feel as though they are not really successful at it. How can a middle school teacher with 150 or more students really know every student and be able to align instruction so as to meet each of their individual needs?

Now that we are in agreement as to why we need to differentiate within our classrooms, let us look at some suggestions as to how to do it.

Slide *How Do We Differentiate?*

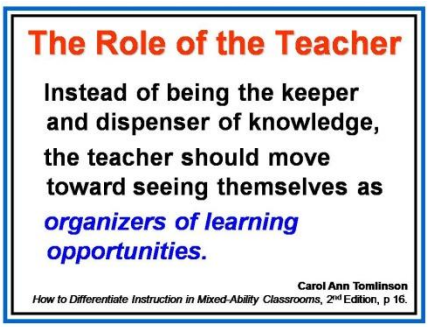
Show slide: How Do We Differentiate?



First, we need to understand the role of the teacher in a differentiated classroom.

Slide *The Role of the Teacher*

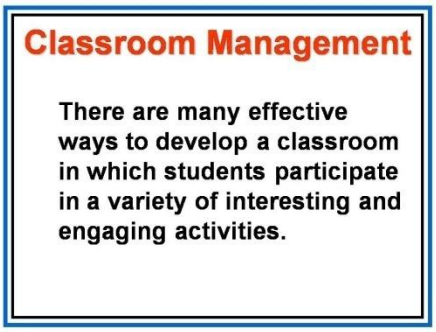
Show the slide allowing for discussion.



Many teachers hesitate to differentiate due to fear of losing control in the classroom. During the GPS training for Days 3 and 4, the topic of Classroom Management was addressed. However, it is very appropriate to address it again during the topic of differentiation.

Slide *Classroom Management*

Show slide.



- **As discussed earlier today, Tape 2 of the ASCD set entitled *At Work in the Differentiated Classroom* focuses on classroom management. The DOE provided each system and each RESA with a set of these materials two years ago, and we recommend that you view this tape to learn more about classroom management in a differentiated classroom.**

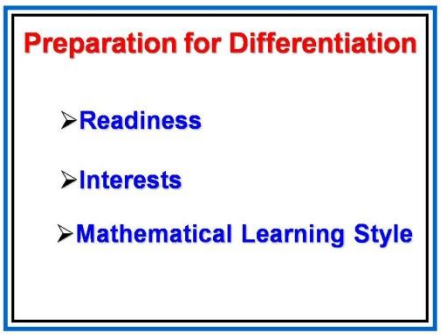
Strategies for Managing
PG page 39
FG page 61
Tomlinson's 17 strategies

Refer participants to tips listed in the Participant's Guide for a list of strategies for managing a differentiated classroom by Carol Ann Tomlinson. These are also in the back section of this guide.

It is known that students learn better when they are given tasks that match their understanding of a topic and their skill level (readiness); when tasks spark their curiosity or passion (interests); and when the task allows and encourages them to work in a preferred manner (mathematical learning style).

Slide *Preparation for Differentiation*

Show the slide.

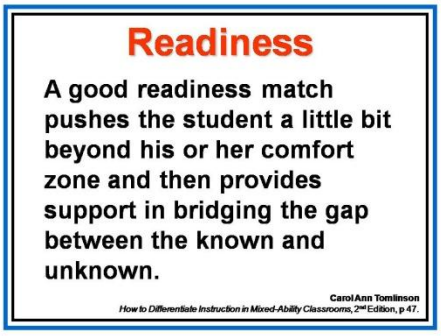


Teachers should observe these three characteristics of students to guide differentiation and instruction: readiness, interest, and mathematical learning style.

Slide
Readiness

The Equalizer
PG page 40
FG page 62

Show the slide.



Differentiation based on readiness is best done by teacher intuition. Teachers also should refine what they are doing by what works or does not work with specific students.

Slide
Readiness

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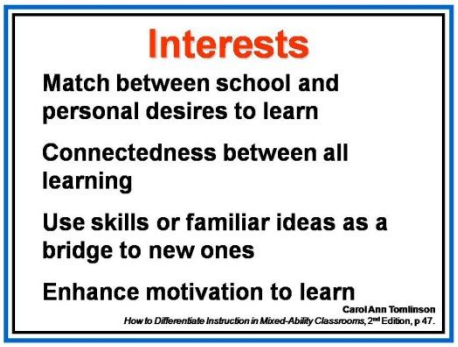


If a student has a strong curiosity about a topic, learning is more likely to take place. However, not all students have the same interests. This necessitates the need for differentiation.

Most of the information that we have been discussing falls under the philosophy of Carol Ann Tomlinson. In previous GPS training, we have also stressed the philosophy of Marzano, who promotes vocabulary and the standards. There is no reason why both of these philosophies cannot work together as mentioned in an article shown in the *Educational Leadership* periodical published by ASCD.

Distribute the copies of the article at this time if they are available.

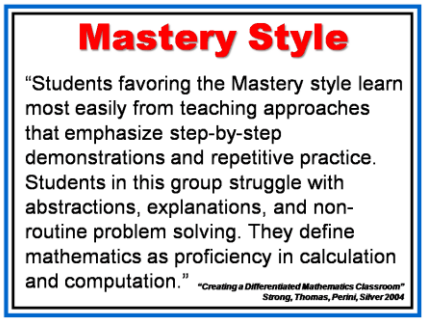
This article is titled "*Creating a Differentiated Mathematics Classroom*" and was written by Richard Strong, Ed Thomas, Matthew Perini, and Harvey Silver.

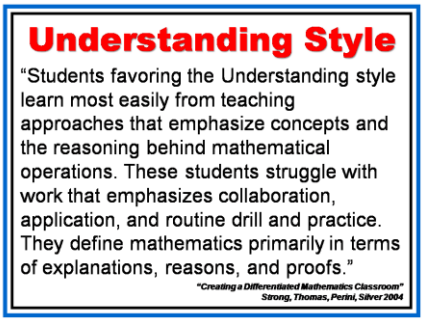
The article may be found at http://www.ascd.org/members/ed_lead/200402/strong.html.

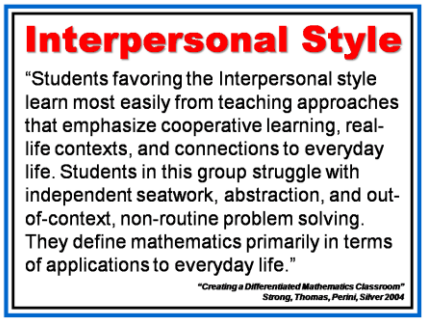
In this article, the authors present what is known as "Mathematical Learning Styles" categorized by standard approaches taken to solve mathematical problems. The four mentioned in the article are shown in the following slides.

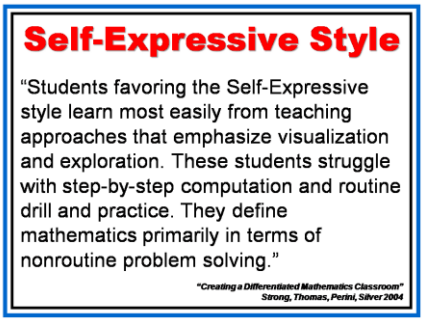
Show the slides.

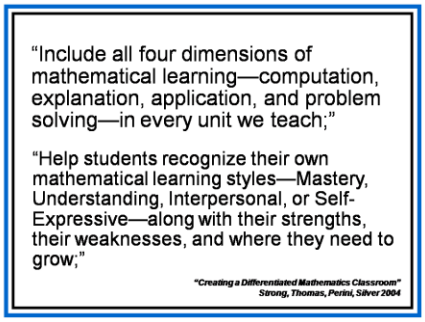
Show slides *Mathematical Learning Styles*

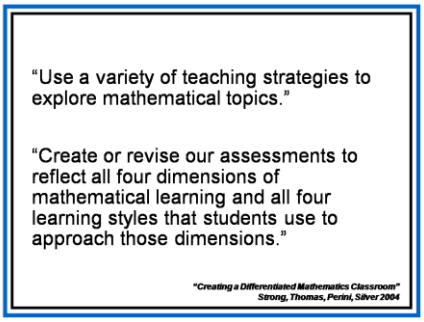












Learning Style Inventories
PG page 41
FG page 63

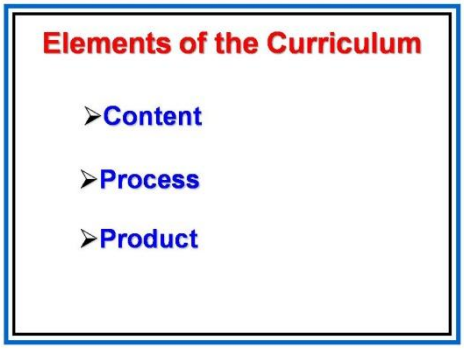
Before a teacher begins to know more about the learning styles of their students, they need to know their own learning style. Most teachers tend to teach to the learning style that is their own preference and not necessarily the preference of their students.

Several different learning style inventories are available. Be sure to look at the resources in the back of the participants' guide.

There is also a need to differentiate the elements of the curriculum. These elements include content, process, and product. This does <u>NOT</u> mean to change the standards!

Show slide.

Slide
Elements of the Curriculum



Resources for differentiating content, process, and products
PG pages 14-32
FG page 38-54

Content can be differentiated in response to readiness, interest, and mathematical learning style. Teachers may adapt *<u>what</u>*** they teach. Once again, this does <u>NOT</u> mean to change the standards! They may also modify or adapt ***<u>how they give students access</u>*** to what they want them to learn.**

Without allowing students to take the time needed to make sense of new material (*<u>or process it</u>***), they either confuse the new ideas or lose them.**

Products are long term assignments that help students rethink, use, and extend what they have learned over a long period of time. They may be done individually or in groups and represent their extensive understandings and applications. These assignments must be highly motivating and allow the students to show what they know.

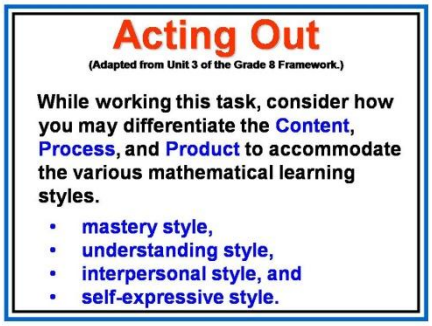
Make sure that the participants are clear on what is meant by content, process, and product as well as the mathematical learning styles before moving on to the next activity. Answer any questions that they may have at this point.

PG page 43
FG page 66
Acting Out

At this time, you are to complete a task from Unit 3 of the Grade 8 Framework. As you work through this task, think about how the content, process, and product may be differentiated according to mathematical learning styles.

Show slide.

Slide
Acting Out



Participants will work in small groups. They should use chart paper to display their work and be prepared to share.

After they have shared and posted their work. Be sure to spend some time reviewing the standards that are addressed within the task before continuing.

Refer the participants again to the pages to help with the assignment
PG pages 14-32
FG pages 38-54

Using the "Acting Out" task, the resources that are available in the Participants' Guide, and knowledge of your students; develop some differentiation strategies that address the different mathematical learning styles.

- As discussed earlier today, Tape 2 of the ASCD set entitled *At Work in the Differentiated Classroom* focuses on classroom management. The DOE provided each system and each RESA with a set of these materials two years ago, and we recommend that you view this tape to learn more about classroom management in a differentiated classroom.

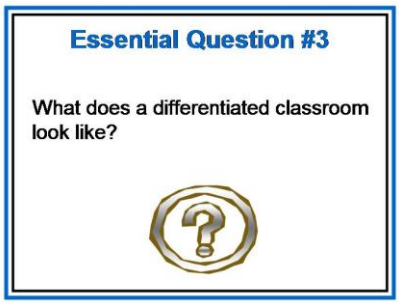
Refer participants to tips listed in the Participant's Guide for a list of strategies for managing a differentiated classroom by Carol Ann Tomlinson. These are also in the back section of this guide.

The Differentiated Classroom	
Overview	This section will focus on available support and resources to help teachers differentiate instruction successfully. We will examine areas in which we may need to rethink traditional ways of doing in order to maximize every student's opportunity to learn. We will look at a number of ways of differentiating that require low levels of preparation, as well as other means that require more preparation. Finally, we will develop individual action plans for moving toward differentiated classrooms.
Objectives	➢ Understand how to find support and resources to assure successfully implementing differentiation instruction within the classroom. ➢ Set individual goals for differentiating instruction in each classroom.
Activities	➢ True/False Quiz: What Does Differentiation Look Like? ➢ "Healthy Heartbeats While Exercising" Unit 7 Task ➢ Setting Personal Goals for Differentiating
Materials	➢ Chart paper and markers ➢ Transparencies or PowerPoint presentation ➢ Traditional and differentiated comparison chart ➢ Participant's Guide ➢ 3x5 lined index cards ➢ Cards with teacher metaphors ➢ Graph paper ➢ Colored pencils ➢ Straightedges ➢ Extra unlined paper ➢ Student profile cards

What Does a Differentiated Classroom Look Like?

Slide
Essential Question 3

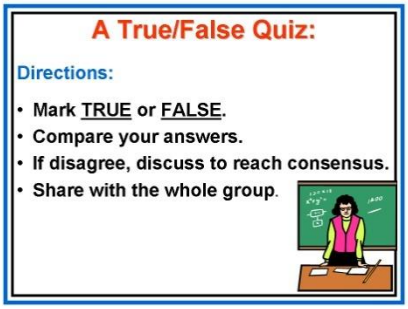
Show slide: *Essential Question 3.*



What Does Differentiation Look Like?: True/False Quiz

True/False Quiz.

Slide
True/False Quiz



True/False Quiz

PG page 46
FG page 69

- **To introduce this section, we're going to take a brief True/False Quiz.**
- **You will find this quiz in the Participant's Guide and in the back of this guide.**
- **Review the answers with your group, and then discuss them as a whole group.**

You have 10-12 minutes for this activity and then we will compare our answers.
Allow for discussion concerning their results.

Slide
Traditional vs. Differentiated Comparison Chart

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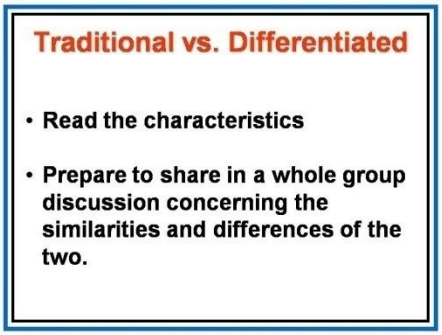


PG page 47
FG page 70

In the back of your guide, you will find a chart that compares a traditional classroom to a differentiated classroom. Please turn to that chart. Take a few minutes to read over it individually and prepare for a whole group discussion.

- **What conclusions might we draw from these similarities and differences?**

- Responses will differ, but expect such things as:
  - Teachers will have to be able to adapt.
  - Teachers will have to be much better prepared.
  - Teachers will have to be more flexible.
  - The day of the teacher being front and center in the classroom are over.
  - Teachers can no longer assume one size fits all.

Now that we have worked all day on understanding the what, why, and how of differentiated instruction, we are ready to actually experience it.

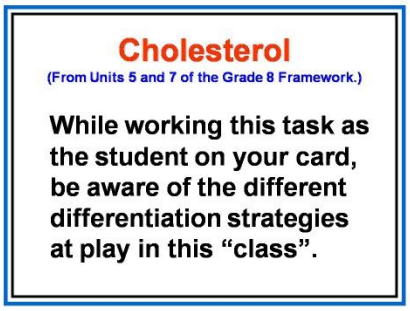
Each participant should have one student profile card.
FG page 72

On your tables are cards that have descriptions of Grade 8 students. We will become a diverse classroom in need of differentiated instruction. Take the role of one student within the classroom for the following task. Remain in your small 'diverse' group.

Slide: "*Cholesterol" Task*

Slide
Cholesterol

PG page 48
FG page 77
Cholesterol Task



This task is from Units 5 and 7 of the Grade 8 framework.

To assure that we all understand the instructions, we will read through the task together.

The facilitator should focus on vocabulary using the RATA strategy. This will help students with low reading abilities and ESOL students to understand what they are to do.

It would also be good to review the Classroom Management strategies for the benefit of 'students' that need reinforcement of these ideas.
Remind them to collaborate and work together on the task.
They will chart their results and be prepared to share.

Give the participants time to work through the task. When all groups have at least finished the *"Good or Bad?"* portion of the task, stop and begin the presentations.

Discuss the solutions and what differentiation strategies were evident.

Be sure that the discussion includes the standards that are addressed within the task.

Slide
Essential Principles of Differentiation

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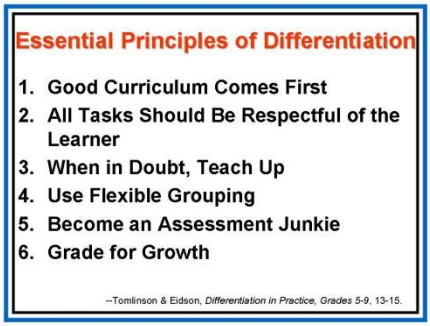


Does this task follow the essential principles of differentiation mentioned earlier today?
If so, how? If not, why not?

Low-Prep and High-Prep Differentiation

- **To help teachers begin, Tomlinson has developed a list of what she calls "low-prep" and "high-prep" differentiation possibilities.**

PG page 52
FG page 81

- **Tomlinson's list is reprinted in the back of your guide. Please turn to that page now.**

Setting Personal Goals for Differentiating

Carol Ann Tomlinson notes that differentiated classrooms do not magically appear overnight. She contends that it is perfectly acceptable to begin slowly AS LONG AS WE DO BEGIN!

Show Slide: *Set a goal*

Slide
Set a goal

Notecards

On a 3 x 5 index card:
1) Write a personal goal for how you plan to change the way you differentiate within your classroom utilizing something that was mentioned today in training. Include a deadline as to when you will have completed this goal.

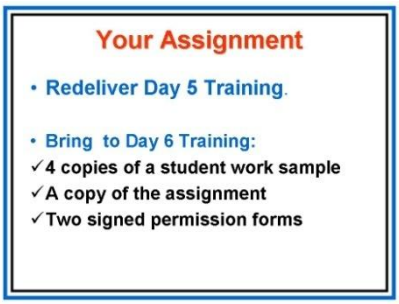
2) Make a plan as to how you will assist another teacher within your school to incorporate differentiation strategies within their classroom. Promise yourself to do this prior to the Day 6 GPS training.

These will be put inside the pocket of your notebook so that you may self-check your progress at our Day 6 training.

Action Plan
FG page 82

- **Using Tomlinson's chart and the Action Plan form in the back of the Facilitator's Guide, begin working on your individual action plan.**

Slide
Your Assignment



- **We have just skimmed the surface of differentiation today. Please dive deeper into this topic via the resources listed in your Day 5 materials.**

Assignments
FG page 83

- **Day 6 of training will focus on Examining Student Work and Teacher Commentary.**
- **You will find assignments for Days 6 and 7 listed in the back of your Facilitator's Guide.**

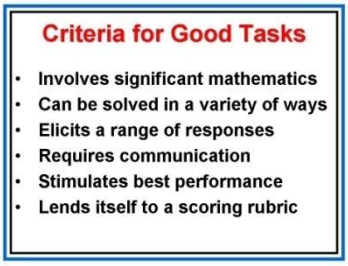
PG page 53
FG page 84

- **For Day 6, please bring a student work sample to 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 printed in the back of your guide.**

The task should be from the eighth grade framework. Remember what we said about what constitutes a good task from our Days 3 and 4 Training.

Slide: Criteria for Good Tasks

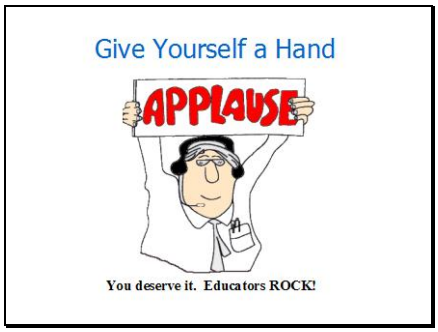
Slide
Criteria for Good Tasks



- **As you work to implement the GPS standards this first year, we also would like for you to 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 high school who will be implementing next year; thoughts or ideas about the second year of your implementation; etc. These will be needed for the Day 7 on-line 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. Don't worry; we do not plan to collect your journals . . . just your suggestions!**

Slide
Give Yourself a Hand

Show slide: Give Yourself a Hand.



- **Thank you for coming and for all that you do for Georgia's students.**

- **Please remember that the staff at the DOE is available to help. Feel free to contact DOE personnel should you have any questions or comments.**

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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.

Murawski, Wendy W., Dieker, Lisa A. (2004, Vol. 36, No. 5). Tips and Strategies of Co-Teaching at the Secondary Level. *Teaching Exceptional Children*, 52-58.

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.

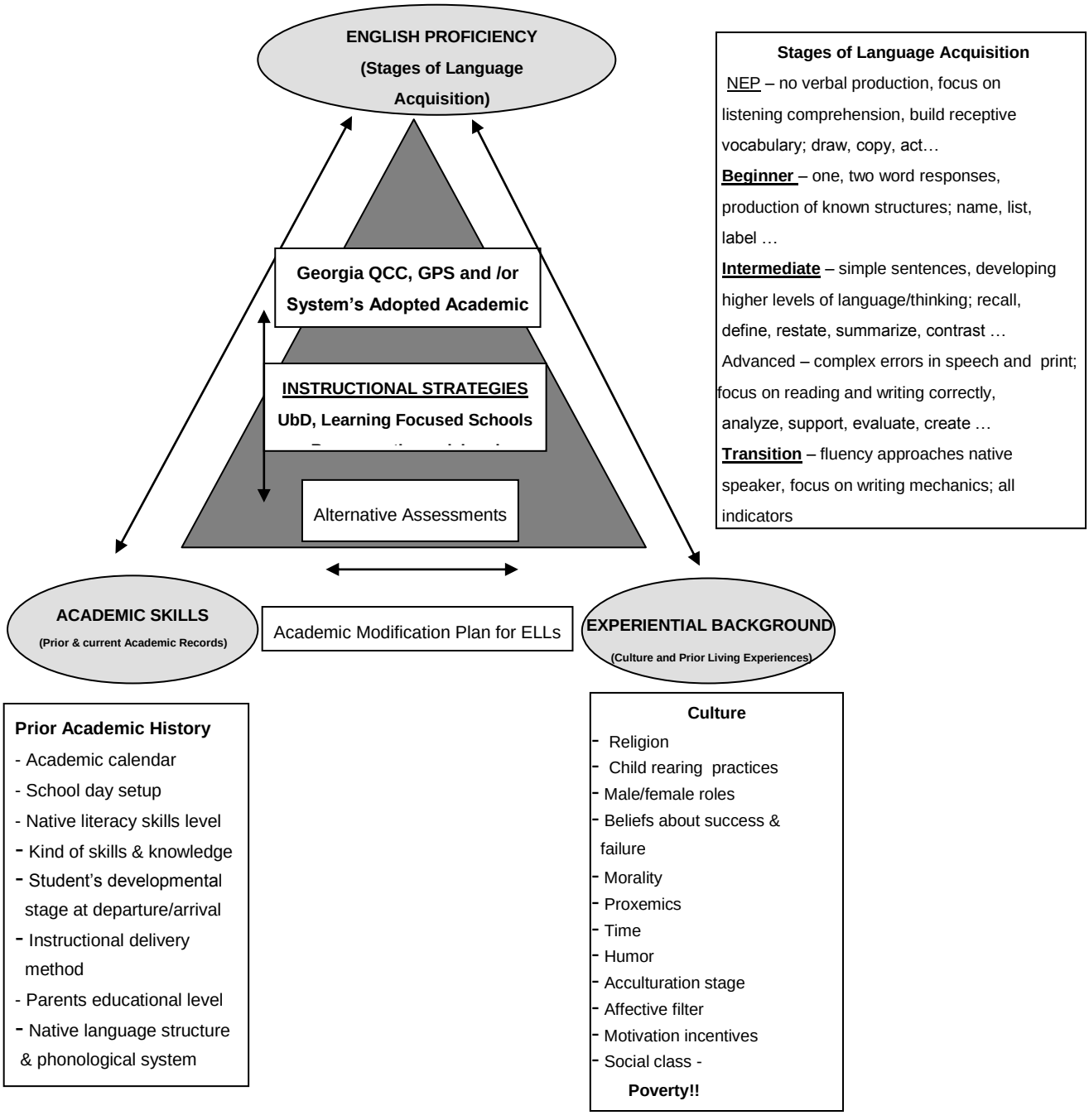
Strong, R., Thomas, E., Perini, M., & Silver, H. (2004, February). Creating a Differentiated Mathematics Classroom [Electronic version]. *Educational Leadership*, 61(5), 73-78. http://www.ascd.org/members/ed_lead/200402/strong.html.

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 5-8.* 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 additional examples pair verbal directions with visual clues 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 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

Suggested Interventions for Students That Are Impoverished

Behavior Related to Poverty	*Intervention*
Laugh when disciplined: A way to save face in matriarchal poverty.	Understand the reason for the behavior. Tell students three or four other behaviors that would be more appropriate.
Argue loudly with the teacher; Poverty is participatory, and the culture has a distrust of authority. See the system as inherently dishonest and unfair.	Don't argue with the students. Have students write the answers to questions, such as "What did you do?" "When you did that, what did you want?" "List four other things you could have done." "What will you do next time?"
Angry response: Anger is based on fear. Question what the fear is: loss of face?	Respond in the adult voice (as opposed to child or parent voice). When students cool down, discuss other responses they could have used.
Inappropriate or vulgar comments: Reliance on casual register; may not know formal register.	Have students generate (or teach other students) phrases that could be used to say the same thing.
Physically fight: Necessary to survive in poverty. Only know the language of survival. Do not have language or belief system to use conflict resolution. See themselves as less than a man or woman if they do not fight.	Stress that fighting is unacceptable in school. Examine other options that students could live with at school other than fighting. One option is not to settle the business at school, for example.
Hands always on someone else: Poverty has a heavy reliance on non-verbal data and touch.	Allow them to draw or doodle. Have them hold their hands behind their backs when in line or standing. Give them as much to do with their hands a s possible in a constructive way.
Cannot follow directions: Little procedural memory used in poverty. Sequence not used or valued.	Write steps on the board. Have them write at the top of the paper the steps need to finish the task. He them practice procedural self-talk.
Extremely disorganized: Lack of planning. Scheduling, or prioritizing skills not taught in poverty. Also probably don't have a place at home to put things so that they can be found.	Teach a simple, color-coded method of organization in the classroom. Use the five-finger method for memory at the end of the day. Have each student give a plan or organization.
Complete only part of a task: No procedural self-talk. Do not "see" the whole task.	Write on the board all the parts of the task. Require each student to check off each part when finished.
Disrespectful to teacher: Have a lack of respect for authority and the system. May not know any adults worthy of respect.	Tell the students that disrespect is not a choice. Identify for students the correct voice tone and word choices that are acceptable. This allows students to practice.
Harm other students verbally or physically: This may be a way of life. Probably a way to buy space or distance. Poverty tends to address issues in the negative.	Tell students that aggression is not a choice. Have students generate other options that are appropriate at school. Give students alternate phrases to those used.
Cheat or steal: Indicative of weak support system, weak role models and/or weak emotional resources. May indicate extreme financial need. May indicate little instruction/guidance during formative years.	Use a metaphor story to find the reason or need behind the cheating or stealing. Address the reason or need. Emphasize that the behavior is illegal and not an option at school.
Talk incessantly: Poverty is very participatory.	Have students write all questions and responses on a note card two days a week. Tell students that each gets five comments a day. Build participatory activities into the lesson.

From: Payne, Ruby K. (2001). A Framework for Understanding Poverty. Highlands, TX: aha! Process, Inc.

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

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

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

What to Differentiate

Content

Content consists of ideas, concepts, descriptive information, and facts, rules, and principles that the student needs to learn. Content can be differentiated through depth, complexity, novelty, and acceleration. Content includes the means by which students will have access to information. Materials can vary according to reading level or by employing text materials on tape.
(**The standards may not be changed!**)

Process

Process is the presentation of content, including the learning activities for students, the questions that are asked, as well as the teaching methods and thinking skills that teachers and students employ to relate, acquire, and assess understanding of content.

Differentiation

Products

Products are the culminating projects and performances that result from instruction. They ask the students to rehearse, apply, or extend what s/he has learned in a unit. A product or performance provides the vehicle that allows students to consolidate learning and communicate ideas.

Learning Environment

The learning environment is the way the classroom looks and/or feels, including the types of interaction that occur, the roles and relationships between and among teachers and students, the expectations for growth and success, and the sense of mutual respect, fairness, and safety present in the classroom.

BLANK PAGE ON COLORED PAPER!

SCRAP WORK AND/OR NOTES:

"The Logical Exercise"

(This task is from Unit 4 of the Grade 8 Framework.)

For information concerning the Presidential Fitness Program, visit http://www.fitness.gov.

After school, the PE teachers at Venn Middle School offer a free opportunity for students to stay and work on improving their fitness skills. Three sessions are held each day and the students may attend the session(s) of their choice.

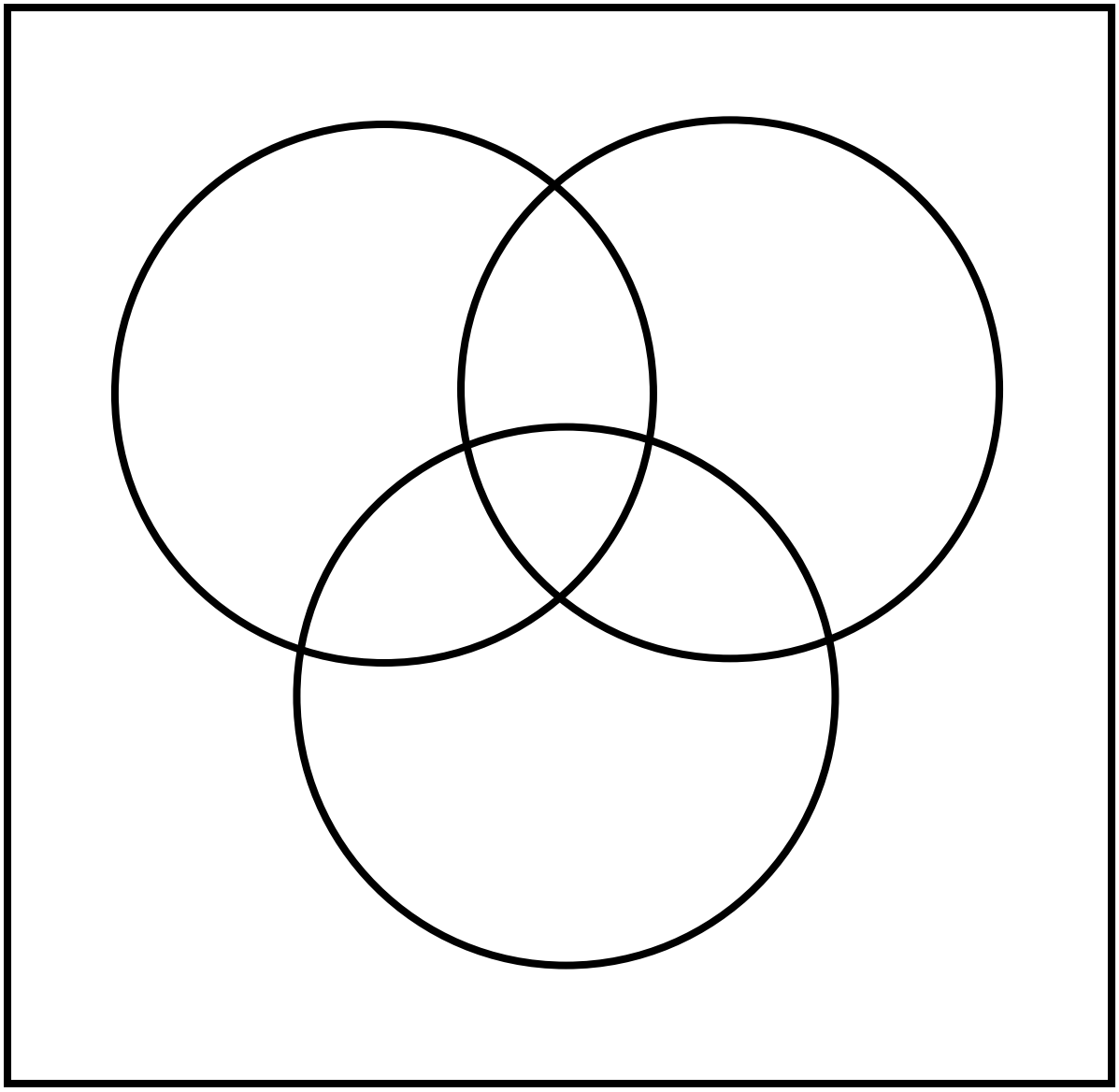
Session 1: Practice on the long jump and sit-ups.
Session 2: Jump rope and pull ups will be done.
Session 3: Running 800 meters and working on improving pull-ups.

Use the clues from yesterday's records to determine how many students stayed after school.

- Forty-one students attended Session 1.
- Fifty-one students attended Session 2.
- Forty-four students attended Session 3.
- The only student that attended all three of the sessions was congratulated by the principal during today's morning announcements.
- Seventeen students attended session 2 and session 3 but did not attend session 1.
- Twelve students attended session 1 and session 3 but did not attend session 2.
- Forty-three students participated in more than one session.
- Seven students stayed after school but did not participate in any of the PE fitness sessions.

If a name was to be drawn this morning from the list of students that attended yesterday's after school PE fitness sessions to win a new pair of running shoes; compare the probability that the winner attended sessions 1 and 2 with the probability that the winner attended exactly two sessions. Explain your thinking.

During each session, the PE teacher picked a name at random to win a school t-shirt. What is the probability that the same student won all three t-shirts? How do you know?



SCRAP WORK AND/OR NOTES:

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.

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)

Suggested Learning Style Inventories

Brain Scan
- Dr. Ron Rubenzer
- *Handbook on Differentiated Instruction for Middle and High Schools*, Sheryn Spencer Northey, Eye on Education, Inc. 2005, p. 8.

Four Learning Styles
- Silver, Strong, and Perini, 2000
- Creating a Differentiated Mathematics Classroom [Electronic version]. *Educational Leadership*, 61(5), 73-78. http://www.ascd.org/members/ed_lead/200402/strong.html.

4Mat System
Bernice McCarthy, 1981
- *Handbook on Differentiated Instruction for Middle and High Schools*, Sheryn Spencer Northey, Eye on Education, Inc. 2005, p. 13.

Index of Learning Styles Questionnaire
- Solomon and Felder, 1993
- http://engr.ncsu.edu/learningstyles/ilsweb.html

Kiersey Temperament Sorter II
- Kiersey, 1998
- http://www.advsorteam.com

Learning Channel Preferences
- Dr. Lynn O'Brien, 1990
- www.way2go.com

Learning Styles Inventory
- Dr. Pat Wyman
- www.howtolearn.com

Multiple Intelligences
- Harold Gardner, 1993
- *Multiple Intelligences: The Theory in Practice*. New York. Basic Books.

Multiple Intelligences Checklist
- A Personal Tour of Multiple Intelligences, 1994
- Citizens Education Center. *Teaching and Learning through the Multiple Inteligences*
- 310 First Avenue South, Suite 330, Seattle, WA 98104, ISBN: 206-624-9955

Myers-Briggs Type Indicator (MBTI)

- Myers, McCaulley, 1985
- http://www.humanmetrics.com/cgi-win/JTypes2.asp

Style Delineator

- Dr. Anthony Gregorc
- http://www.gregorc.com

The Learning Type Measure (LTM)

- http://64.226.183.123/Itm-purchase.htm (cost $8.00)

What Kind of Fruit Are You?

- Katherine Butler, 1987
- http://www.learnersdimension.com

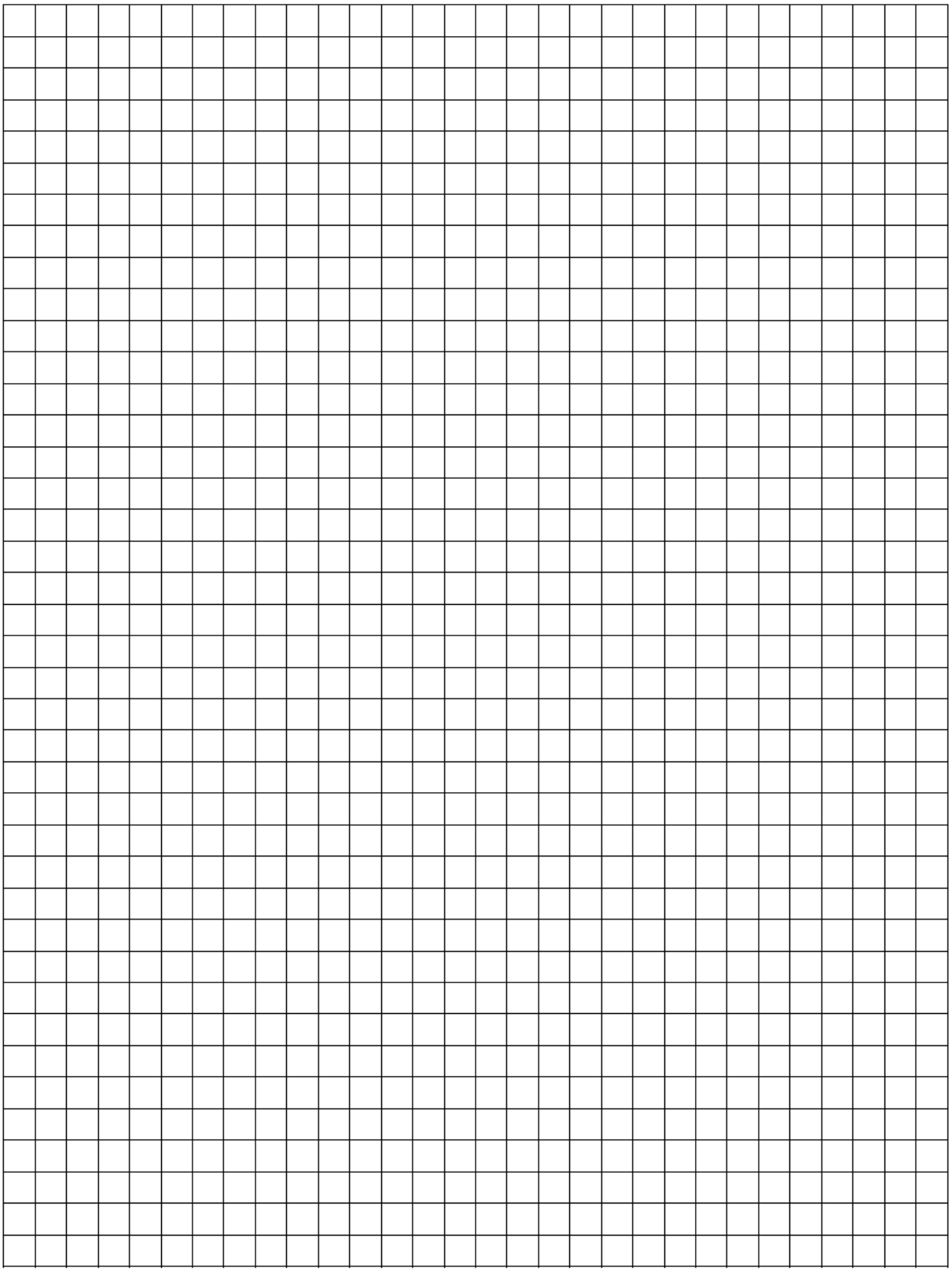
Differentiation Activity

	Mastery	**Understanding**	**Interpersonal**	**Self-Expressive**

"Acting Out"

(This task is from Unit 3 of the Grade 8 Framework.)

- Erik and Kim are actors at a theater. Erik lives 5 miles from the theater and Kim lives 3 miles from the theater. Their boss, the director, wonders how far apart the actors live.
- On grid paper, pick a point to represent the location of the theater.
- Illustrate all of the possible places that Erik could live on the grid paper.
- Using a different color, illustrate all of the possible places that Kim could live on the grid paper.
- What is the smallest distance, *d*, that could separate their homes? How did you know?
- What is the largest distance, *d*, that could separate their homes? How did you know?
- Write and graph an inequality in terms of *d* to show their boss all of the possible distances that could separate the homes of the 2 actors.
- Explain how Erik and Kim could live approximately 6 miles apart.



SCRAP WORK AND/OR NOTES:

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.

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

SCRAP WORK AND/OR NOTES:

Student profile cards for simulating a diverse classroom

You are a very bright student. You can remember most factual information the first time it is presented. However, you have a problem remaining focused during traditional instructional activities (lectures, worksheets, etc.) When you stop working you will sometimes look around the class. If you finish work early, it is difficult to simply sit still and you may pester other students.	You are a gifted student. You are very interested in science. You often seek out information pertaining to science outside the normal course curriculum. You excel on your daily class work, but will become bored if you are required to complete whole class assignments instead of small group assignments.
You are an extremely quiet, intelligent young lady. You do not participate in class discussions, but consistently perform well on standardized tests. You turn in all of your homework and class work assignments. You receive A's in all of your courses, but dislike completing more difficult or challenging assignments.	You love to draw. You have a book of cartoon characters that you use your sketch paper to reproduce. You often put off individual classroom assignments to continue drawing the characters in your book. Your classmates have acknowledged your talent, and often comment on your superior ability.
You are a very smart student. However, you like to entertain the class with your jokes and spontaneous comments during whole class sessions. You make "funny" comments that actually go far beyond humor. The cutting effect of such comments is intentional. Your classmates often become distracted by your "off the wall" statements. Though you enjoy amusing the class, you complete your assignments on time. You receive A's and B's in all of your classes.	You are an average student. You like school because you are with people during the day. You are an only child and it is very quiet at home. Your favorite past time is reading adventure or science fiction novels.
You participate in various sports. You are a member of the basketball, football, and track teams. However, you are not consistent in turning in daily class work assignments. You rarely complete homework assignments, and are a mediocre student. You read sports magazines when you think you can get away with it. You are not a discipline problem, but do not seem to show an interest in anything besides sports.	You are an inclusion student. You feel a little uncomfortable being in a large class after years in a smaller setting. You think that many of the kids in your class are smarter than you are. As a result, you tend to withdraw during class discussions. You exhibit little or no effort on class assignments or projects. You can understand basic concepts and show potential when you try to complete the work you are given.

You like to write poetry and listen to music. You often look up your favorite artist's lyrics on the internet and attempt to memorize them. During class sessions it is not unusual for you to hum or sing quietly to yourself. Recently, your CD player was collected in class while you were listening to your favorite singing group. You aspire to become a famous singer and go on tour all over the world.	You are happy with your A's and B's on your report card. It makes you feel good inside when you finish a challenging assignment and you work very hard to make it perfect. However, you see no reason to do mundane or routine tasks and tend to make poorer grades on those types of assignments.
You are very talkative. You cannot wait for a break in the class session so you can exchange the latest gossip with one of your friends. You are a very poor listener and often do not realize you are talking. The teacher often has to tell you to stop talking at inappropriate times. You are a very bright student, but allow your talking to interfere with completing individual assignments.	You have trouble with your reading. Your standardized test scores reflect that you read several years below grade level. When you read aloud, some of the students laugh at you. You have trouble pronouncing basic words, and you possess low reading comprehension skills. You feel uncomfortable reading aloud in class because of the comments other children make toward you.
You always challenge the teacher's fairness regarding major tests. You seek out alternative measures to prove your ability. You may suggest to the teacher to take a different type of test or to be tested after the class is tested. You often argue over the correctness of answers on the test. The teacher feels you may be trying to escape blame for your failures, and use your behavior to gain attention from your peers.	You are a constant worrier. You worry so often it may lead you to becoming upset physically and mentally. You worry about tests, projects, and how people perceive you. You expect failure, and this expectation often deepens your worrying. Your feelings tend to lead to lack of participation and withdrawal during class activities.
You question everything. You ask an abnormal number of questions about every conceivable subject. You tend to ask questions even when you know the answer. You even interrupt lectures or class activities to ask questions. You make very good grades, and your favorite subject is math. You would love to become a math teacher someday.	You are extremely quiet and do not participate in class sessions. You sit in class and do nothing most of the time. You do enjoy playing various games on the computer, and you seem to make attempts to participate in class sessions that involve review games (i.e., Jeopardy, Wheel of Fortune).

You approach every task with an "I can't" attitude. Your teacher thinks you lack self-confidence. You even claim to be unable to complete assignments that you have done previously. You feel it is much better to say, "I can't" than to attempt any task. You will attempt to do rudimentary assignments, but refuse to do anything that requires you to complete complex tasks.	You are an average student. You receive B's and C's in your core classes. You infrequently complete your homework and class work. Your dad taught you how to work on cars. You know how to change oil, check tire pressure, and make other minor car repairs. You enjoy taking things apart and putting them back together. You also enjoy working on electronic devices such as game boys, radios, and even computers.
You seem to be satisfied with second place. You intentionally identify the classmate who is first or the most intelligent pupil. You feel that you are only worthy of second place. You are capable of being a top student, but you seem to have a sense of inferiority. You tend to idolize the first-place student, and your lack of self-confidence makes you feel you could never be first.	You are overwhelmed with the number of assignments you have yet to complete. You get so far behind you cannot seem to catch up. Every class day seems to dig you deeper and deeper into the hole of failure. You get very frustrated when you are unable to finish your class work or assigned projects. You try to do your best, but you can never seem to catch up.
You are an inclusion student. You demonstrate a high degree of ability on the individual assignments you turn in. However, you always want to do what the group is doing. You have a tendency to see yourself as always "part of the group." You can complete assignments on your own, but seek attention from your classmates to validate yourself.	You love school. At home, you sometimes pretend that you are still at school. You enjoy learning new things and are happy to do whatever the teacher asks you to do. After school, you take ballet lessons and have actually become very good on your toes.
You make strange sounds or noises in the classroom. Some of your common odd noises include: hums, whistles, throat noises, and tapping on your desk. You play the violin in the orchestra, and love listening to classical music. Sometimes the noise you make prevents you from completing your assignments and may distract other students.	You never finish a project. You love to plan large-scale projects, but you never come close to completion. When you work in a group situation, you will praise those that go along with your elaborate ideas and ridicule the more conservative group members. Your goals are often too high for successful achievement, and you leave the majority of the work for your group members to complete.

You are a student that has been retained several times during your schooling. Many of your past teachers passed you reluctantly because they did not want to deal with your disrespectful behavior another year. You have the ability to perform on a satisfactory level in a school setting, but you have yet to reach your full potential. You do not work up to your ability level, and have taken on an indifferent attitude toward school because of past failures. You feel uncomfortable at times because you are older than the other students, and this makes you feel a little insecure.	You have a lot of energy. You can't sit still for more than 10 to 15 minutes at a time. You appear to be fidgety and have a very short attention span. You frequently get out of your seat without permission and walk around the classroom. If you are not out of your seat, you are raising your hand to ask permission to leave the room. Your most common requests include: a) "Can I go to the restroom?" b) "I left my book in my locker. Can I go get it?" or c) "Can I go see the counselor?"
You display an "I don't care" attitude toward school. You repeatedly say, "I don't care" to teachers, students, and other school personnel. You show disgust and lack of interest in many of your class activities.	You are an above average student, and a perfectionist. You take more time to complete assignments than other students in the class because you want to make sure your answers are correct and your penmanship is neat.
You like to be the first person finished with your assignments. You are an intelligent young man, but you rush through your work so you can be the first person complete. Occasionally, the speed at which you complete your assignments results in incorrect answers.	You are a good student. However, English is not your first language. Sometimes you struggle with comprehending the content of your textbooks because you are primarily a Spanish-speaking student.
You are every teacher's favorite student. You consistently work to the best of your ability on every assignment. If you finish early, you gladly assist the teacher or help other students complete their work.	You have to work harder to understand ideas and concepts; but once you do, you never forget. You are always willing to spend extra time on assignments.
You are happy where ever you are and whoever you are with at the time. It makes you feel good to help other people and school is no exception. You volunteer at the homeless shelter and enjoy helping the little old lady that lives next door.	You are very shy. Because your parents just recently went through a divorce, you and your Mom have just moved to Georgia after living your entire life up to now in the same house. You miss your friends back 'home' very much and fear that you will never make any new ones here. You made B's and C's before, but you are determined to make better grades in your 'new life'.

You are an extremely bossy student. You are very opinionated, and do not hesitate to interrupt lectures or class activities to challenge the validity of a concept presented. You do not work well in groups because you attempt to perform all the tasks yourself without the assistance of other group members. Your classmates despise you and avoid working with you whenever possible.	You enjoy playing on-line games in your spare time and have become very proficient at it. Because of the many hours that you spend with this activity, it is easy for you to think quickly and make decisions. However, most of the assignments at school are not as exciting as the games and sometimes you daydream a little in class when the teacher talks for long periods of time.
You do not complete your assignments because you say, "I've never seen this before" or "I don't know anything about that". You repeatedly make comments like, "What?" "How did you do that?" "Huh?" and "Could you do that again?" The teacher questions whether you really do not understand or if you are "playing dumb." You may be using this as a means to excuse yourself from performing in the classroom.	You have discovered the opposite sex! It is very hard to focus in class because of the really cute student sitting across the room. Whenever the teacher calls on you, all you want to do is make a good impression and be noticed. You like to make good grades and usually do, but recently, your grades have started to fall.
You complain about every assignment you are given. Your teacher usually writes the assignment on the board or tells the class when a project is due with very little input from the students. You complete the majority of your work, but dislike the redundant tasks you complete in class. In your spare time you write and perform in plays for your local community center. You recruit younger kids from the neighborhood to participate in your productions. You often wish your classes at school were just as exciting as the performances at the community center.	You are new to the USA and know very little English. Math has always been your favorite subject and you expect to do well in class because the numbers are the same. However, you have noticed that there is a good bit of reading required in your new math class. This has you very motivated to learn the language as fast as you can, but it is very frustrating at the moment.

"Cholesterol – Good or Bad? – Worst Case Scenario?"

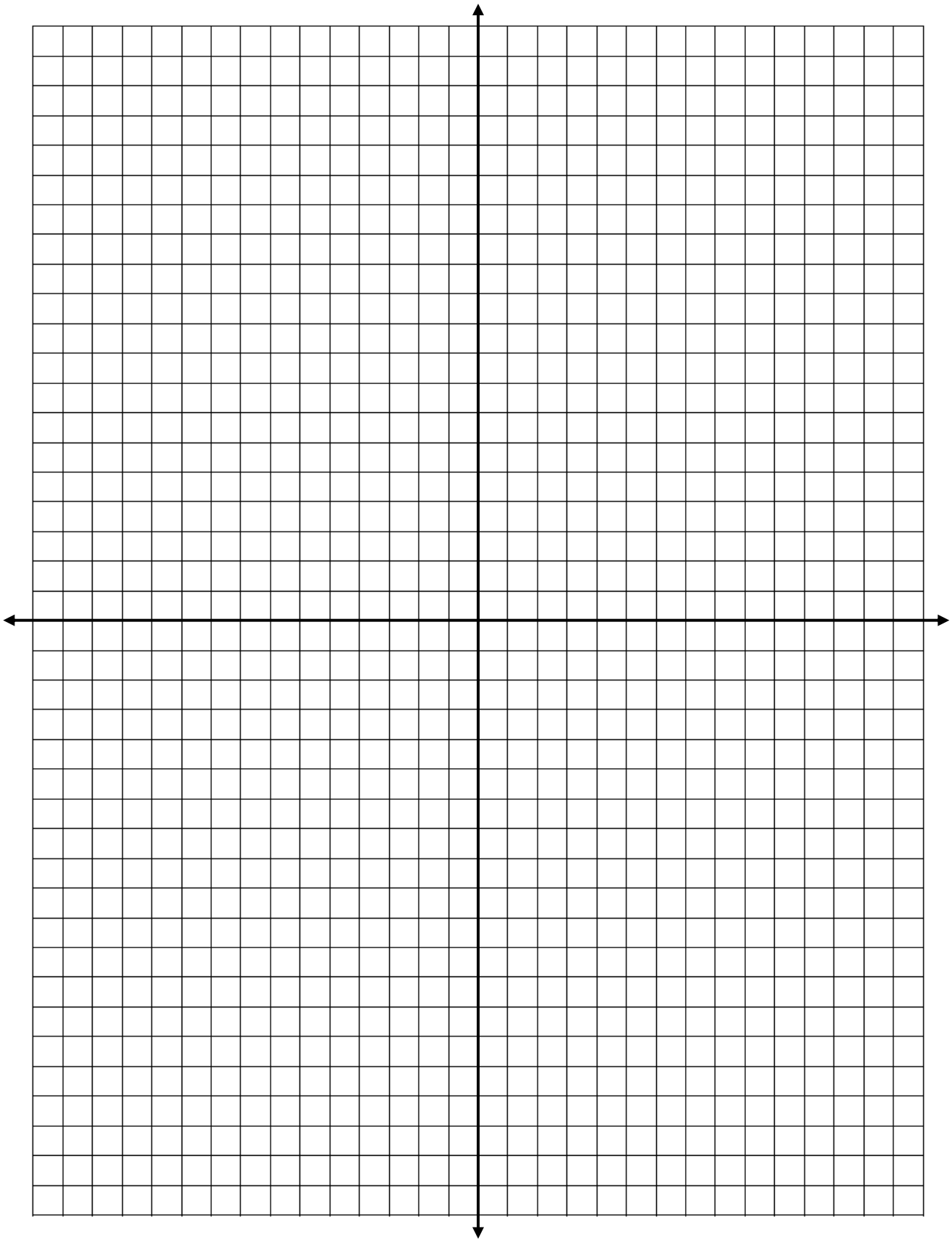
(This task is from Units 5 and 7 of the Grade 8 Framework.)

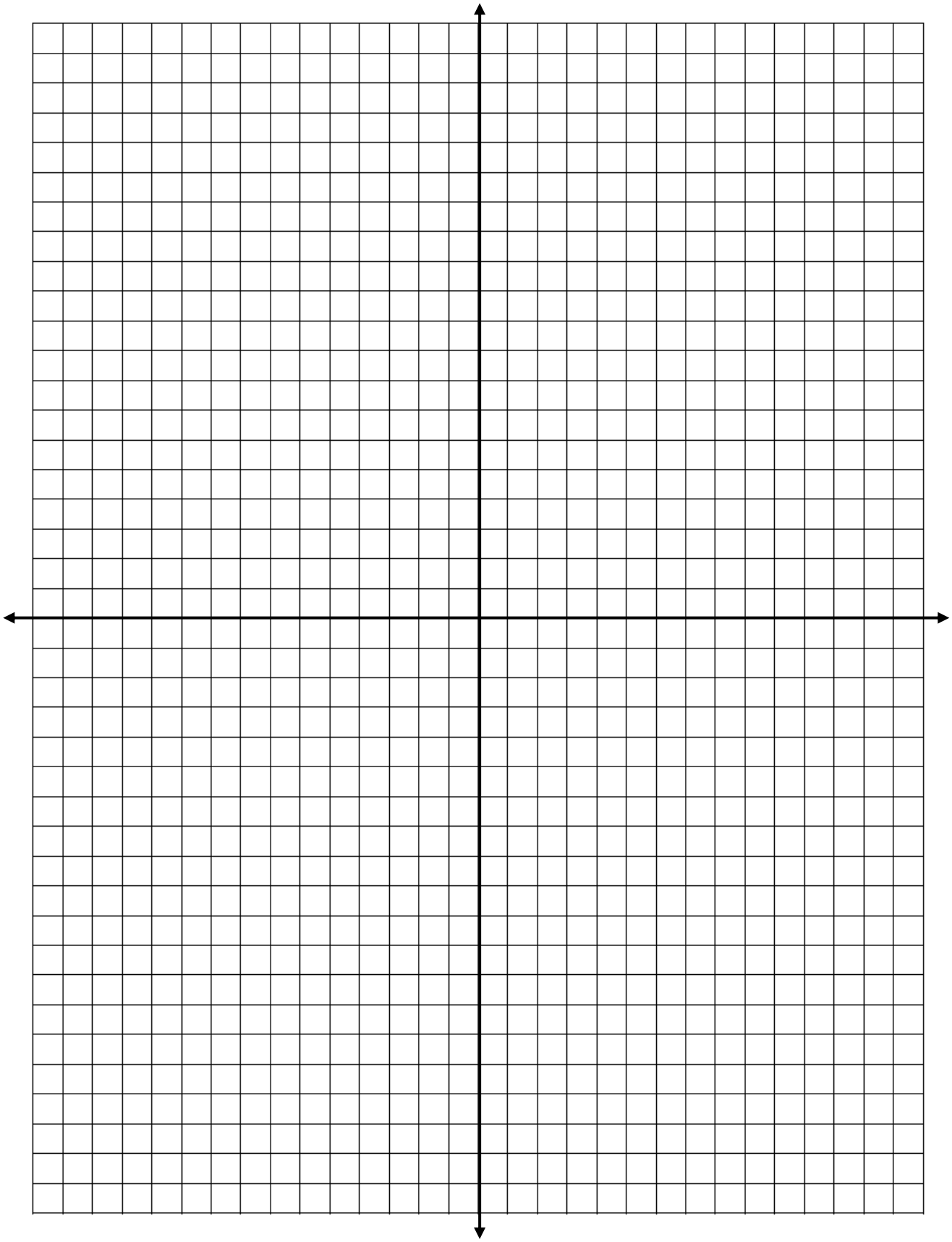
Matt's mom goes to the doctor regularly and has her cholesterol checked. The blood chemistry report shows several measurements related to cholesterol. Matt learned that there is a good kind of cholesterol (HDL) and a bad kind of cholesterol (LDL). In addition to being concerned about the total amount of cholesterol, people have to be concerned about the ratio of total cholesterol to good cholesterol. The average ratio of total to good cholesterol is 4.5 to 1. A ratio above 4.5 to 1 is an increased risk for heart disease.

Make a graph to help Matt see the combinations of total cholesterol and good cholesterol readings that would be higher-than-average risks. Let the x values represent the good cholesterol reading and the y values represent the total cholesterol readings.

Matt's mother's HDL = 35 and her total cholesterol was 200. His father had HDL = 60 and total cholesterol of 240. Help Matt to understand whether or not his parents' have combinations that are considered higher-than-average risks as far as the ratio of total to good cholesterol is concerned. Justify your answers.

Matt now wants you to add to the graph you made about cholesterol ratios. He wants a visual representation summarizing the worst-case scenario related to cholesterol. Show on your graph the region that represents increased risk for heart disease based on the ratio of total cholesterol to good cholesterol **and** increased risk because of total cholesterol ($y > 200$) **and** increased risk because of low values of good cholesterol ($x < 40$).





SCRAP WORK AND/OR NOTES:

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
- Tic-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

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. Please use tasks from the Grade 8 Framework. This sample should include 4 copies of the student work, 4 copies 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 5 of the training and in the back of this guide.

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 high school 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 7 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.

Teacher Permission Form 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:

_____

Parent/Guardian Permission Form for Student Work

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:

_____