Dare to Differentiate

Race to the Top
Henry County Public Schools
What does differentiated instruction mean to you?
Differentiated Instruction Carousel

**Action**—Present your information in song format

**Drama**—Create a short skit to present your information

**Reality**—Write an acrostic poem to present the information

**Heck if I know**—Use a graphic organizer of your choice to present the information
What Differentiated Instruction Is and Is Not
OUR TEACHER HAS AN INTERESTING THEORY.

SHE SAYS TEACHING IS LIKE BOWLING

ALL YOU CAN DO IS ROLL THE BALL DOWN THE MIDDLE AND HOPE YOU TOUCH MOST OF THE STUDENTS

SHE MUST BE A TERRIBLE BOWLER!
As With Clothing, So With Lessons: One Size Does Not Fit All.
Welcome to school, please take a label.
Differentiation is a Way of Thinking About Teaching and Learning
The standard is not negotiable, but the road to it is.
When you...

- Dine out you are offered a menu.
- When you shop you choose the item that best suits your need.
- When listening to the news you choose the station you prefer.
The Key to a Differentiated Classroom

The Key to a differentiated classroom is that:

- students are regularly offered **CHOICES**
- students are matched with tasks **compatible** with their **individual learner profiles**.
Differentiation Basics
Differentiation Basics

• Are you conscious of the efforts you make to meet the needs of all your students?
• Do you keep track of the ways you address individual learning styles and preferences?
• Do you arrange your classroom and structure lessons to increase student motivation?
• Whenever possible, do you provide students with choices and options regarding how they are going to learn and how they are going to show their learning?
• Do you vary the ways in which you assess student learning?
• Do you use cooperative learning and grouping strategies to increase student participation?
Differentiation shouldn’t be something that complicates your day or life. Although additional work and effort are required up front, the payoff comes later in the lesson of study or even in the school year. The payoff comes when students achieve more in your classrooms, become more involved in classroom discussions, smile more during their school days and even score higher on various assessments.
Differentiation

is a teacher’s response to learners’ needs

guided by general principles of differentiation, such as

responsible tasks

ongoing assessment

flexible grouping

Teachers can differentiate

Content  Process  Product

Readiness  Interests  Learning Profile

according to students’

through a range of instructional and management strategies
Content, Process and Product
Content (what students learn)

- Includes curriculum topics, concepts, or themes
- Reflects state or national standards
- Presents essential facts and skills
- Differentiates by preassessing student skills and understandings, then matching learners with appropriate activities
- Provides students with choices in order to add depth to learning
- Provides students with additional resources that match their levels of understanding
Process (how students learn)

- Refers to how students make sense or understand the information, ideas and skills being studied
- Reflects student learning styles and preferences
- Varies the learning process depending upon how students learn
Product (the end result of student learning)

- Tends to be tangible (reports, tests, brochures, speeches, skits, etc.)
- Reflects student understanding
- Differentiates by providing challenge, variety and choice
Know, Understand, and Do (KUD)

**Know:** facts, vocabulary, definitions, places, information
*Example: Multiplication facts*

**Understand:** essential truths, principles & generalizations, big ideas of a content area
*Example: I want students to understand that multiplication is another way to add numbers*

**Do:** basic skills, thinking skills, planning skills, uses verbs or phrases
*Example: Students solve problems requiring multiplication.*
K: Students will know that fractions, decimals, and percents name parts of a whole

U: Students will understand that a given amount can be named as a fraction, a decimal, and a percent. They will understand that although the name changes, the value of the amount stays the same.

D: Students will convert given number values into a fraction form, a decimal form, and a percent form.
K: Students will know the effects of the Holocaust.

U: Students will understand how prejudice can lead to cruel and often unimaginable events.

D: Students will write about the effects of prejudice in a variety of creative/informational formats.
Teachers use tiered activities so that all students focus on essential understandings and skills but at different levels of complexity, abstractness, and open-endedness.

By keeping the focus of the activity the same, but providing routes of access at varying degrees of difficulty, the teacher maximizes the likelihood that:

1) each student comes away with pivotal skills & understandings

2) each student is appropriately challenged.
Six Ways to Tier a Lesson

- Tier by *challenge level* (Bloom’s Taxonomy and RigorMeter)
- Tier by *complexity* (above level, on level, below level)
- Tier by *resources* (various reading levels and complexity of content)
- Tier by *outcomes* (use the same materials but end products vary)
- Tier by *process* (end products are the same but the ways students arrive at those outcomes may vary)
- Tier by *product* (group by multiple intelligences or learning styles followed by assignments that fit those preferences)
Steps to Tiered Instruction

1. Identify key concepts, skills and understandings you want all students to achieve. These elements become the basis for your on-level tasks.

2. Identify how you will cluster groups/activities. Keep the number of levels consistent with your group of students. Don’t make 3 tiers if only two groups exist in your classroom.

3. Select elements to tier.

4. Create your on-level tier.

5. Design a similar task for struggling learners.

6. If needed, develop a more advanced activity for learners who have already mastered the basic standard. Make sure the task actually requires higher-level thinking and that it is not just more of the same thing.
Basic Tiered Activity
(Completing a Character Map)

Tier 1 (Low)
Describe:
• How the character looks
• What the character says
• How the character thinks or acts
• The most important thing to know about the character

Tier 2. (Middle)
Describe:
• What the character says or does
• What the character really means to say or do
• What goals does the character have
• What the character would mostly like us to know about him or her
• What changes the character went through

Tier 3 (High)
Describe:
• Clues the author gives us about the character
• Why the author gives these clues
• The author’s bottom line about this character
Tiering by Challenge Level

Book Talk Presentations

*Lower levels of Blooms:*
- List story elements (knowledge)
- Book summary (comprehension)
- Support a conclusion about a character with evidence from the book (application)

*Higher levels of Blooms:*
- Discuss the theme or author’s purpose for writing the book (analysis)
- Create a new ending for the story (synthesis)
- Critique the author’s writing and support your opinion (evaluation)
After whole group class reading of a current events issue in the Time for Kids magazine such as global warming, students complete a related activity differentiated by complexity.

**Tier One:** Students are asked to write a public service announcement using jingles, slogans, or art to convey why global warming is a problem and what people can do to prevent it.

**Tier Two:** Students conduct a survey of peer awareness and understanding of global warming. They design a limited number of questions and decide how to report their results such as with charts or in a newscast.

**Tier Three:** Students debate the issue about the seriousness of global warming, each side expressing a different viewpoint. They must provide credible evidence to support their opinions and arguments.
Students using tiered resources may be engaged in the same activity, (such as find five examples of contributions made by Native Americans), or they may be working on a different, but related activity (such as one group researching plants of the desert, while another researches animals of the desert).
Tiering by Outcome

Students all use the same materials, but what they do with the materials is different.

**Pattern Block Math**

*Tier One:* Identify all the ways you can group your pattern blocks.

*Tier Two:* Identify all the different patterns you can make with your pattern blocks.

*Tier Three:* Create a bar graph to show all the different kinds of pattern blocks in your bag.
Students work on the same outcomes, but use a different process to get there.

Example: What are the characteristics of a hero?

**Tier One:** Make a chart of specific heroes and what they did to make them become a hero.

**Tier Two:** Choose two or three heroes and compare them in a Venn diagram.

**Tier Three:** List personal characteristics exhibited by heroes and rank them from most to least important.
Groups are formed based on learning preference, using Gardner’s multiple intelligences.

Example: For a unit on the solar system; study of rotation and revolution of the earth.

**Tier One:** Create a flip book, diagram, or model showing the rotation of the earth around the sun (visual-spatial).

**Tier Two:** Position and move three people to demonstrate the concept of revolution and rotation of the earth with respect to the moon and sun. (bodily-kinesthetic)

**Tier Three:** Make a timeline of a year detailing the position of New Hampshire with respect to the sun. (logical-mathematical)
Menus

- Offer students a way to make decisions about what they will do in order to meet class requirements

- Could be for a single lesson, a week-long lesson, or even a month-long period of study
Steps to Create a Menu

1. Identify the most important elements of a lesson or unit.

2. Create an imperative or required assignment or project that reflects the minimum understanding you expect all students to achieve.

3. Create negotiables which expand on the required assignment. These activities should require synthesis, analysis, or evaluation.

4. Create a final optional section that offers students the opportunity for enrichment. These activities could be used for extra credit.
Menu Format

Appetizers (Negotiables)
- A list of assignments or projects
- Students select one item to complete

The Main Dish (Imperatives)
- An assignment or project that everyone must complete

Side Dishes (Negotiables)
- A list of assignments or projects
- Students select two items to complete

Desserts (Options)
- Optional but irresistible assignments or projects
- Options should be high interest and challenging
- Students choose one of these enrichment options
Main Dish (Complete all)

- Measure the length of the objects in the measurement container using any of the nonstandard units we have used in class.

- Use the large paper clips to measure the pictures of the objects on the worksheet R 17.1
Menu Example

Side Dishes (Select at least 2)

- Read the book *The Biggest Fish.* Measure the length of the fish in the fishing net to the nearest inch. Then glue them onto a sentence strip from shortest to longest.

- Complete the “What’s My Length?” activity.

- Use a ruler to draw and label lines for the following measurements: 10 inches, 5 inches, 3 centimeters, 15 centimeters, 1 foot, 1 inch, 3 inches, and 10 centimeters.

- Organize the pictures of the objects in order from smallest to largest.

- Complete the “How Far to the Dragon’s Lair?” activity sheet.
Dessert (Optional- Select 1)

- Draw a map. Label 4 locations on your map with a large dot. Using your ruler, draw lines to connect these locations. Measure and label these lines on your map to the nearest inch. Write a story problem on an index card that can be solved using your map.

- Read *How Big is a Foot?* Then pick 5 objects from the measurement container to measure using a small paper clip, an eraser, and a ruler. Complete the worksheet for this activity.
Cubing
Cubing

- Look at a topic from 6 different angles

- Can be used as an after-reading strategy that requires students to think critically about a topic

- Apply information in new ways

- Can be differentiated by interest and readiness
Hershey's Kiss

• **Describe It:** What does the Kiss look like?

• **Compare It:** Compare the chocolate Kiss with something else. What is it similar to or different from?

• **Associate It:** What do you associate chocolate Kisses with? What does it make you think about?

• **Analyze It:** Describe the Kiss’s ingredients. What are its parts? How is it made?

• **Apply It:** What can you do with a chocolate Kiss? How can you use a Kiss?

• **Argue For or Against It:** Present an argument for or against chocolate Kisses
Steps to Create a Cube

1. Select a topic (Civil War).
2. Create groups based on readiness or interest.
3. Assign each group a perspective from which to explore the topic.
   - Describe the Civil War
   - Compare the Civil War to another war.
   - Associate the Civil War with other issues, topics or concerns
   - Analyze the Civil War by discussing the events and decisions that led to the war.
   - Apply the lessons you’ve learned from studying the Civil War. How does learning about the Civil War help you understand events, issues, topics and decisions that still exist today?

Argue for or against the Civil War. Should the war ever have been fought? Take a stand and list your reasons.
Tic-Tac-Toe Choice Boards

• Students participate in multiple tasks that allow them to practice skills they’ve learned or demonstrate and extend their understanding.
• Students either choose or are assigned three adjacent or diagonal tasks to complete.
• Choice boards address student readiness, interest or learning preferences
1. Identify the outcomes and instructional focus of a unit of study.

2. Use assessment data and student profiles to determine student readiness, learning styles, or interests.

3. Design 9 different tasks.

4. Arrange the tasks on a choice board.

5. Select one required task for all students and place it in the center of the board.

6. Students complete three tasks, one of which must be the task in the middle square. The three tasks should complete a Tic-Tac-Toe row.
Think-Tac-Toe Money Unit

Complete any three boxes. The products and assignments are due by __________.

<table>
<thead>
<tr>
<th>Complete the Sweet Treat shopping cut and paste activity sheet.</th>
<th>Complete the file folder games on money.</th>
<th>Count the money amounts in each piggy bank and record the amount on the recording sheet.</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are 13 different ways to make 25 cents using a quarter, dimes, nickels, and pennies. Use the table worksheet to record the ways that you can find.</td>
<td>Draw a picture of a toy you want. Tell how much it will cost. Then draw the money to show its cost.</td>
<td>Write an explanation to someone telling how you would count the money in the money envelope.</td>
</tr>
<tr>
<td>Complete the Money riddles activity.</td>
<td>Play the Shop ‘Til You Drop game. You will turn in your shopping list after you play this game.</td>
<td>Complete the Choices, Choices worksheet OR In the Garden worksheet</td>
</tr>
</tbody>
</table>
RAFT
RAFT
(Role, Audience, Format, Topic)

- **Role of the Writer** – Students choose a role they wish to emulate. Options may include a soldier, a chemist, a bird, a mayor, or a sheep. Writing from a different perspective helps students to develop critical thinking skills as they have to consider what would be important to the specific role they chose.

- **Audience** – Writing for a specific audience also leads to high order thinking as the student will need to consider what the audience needs to know. An audience could be a person or a group of people and might include anything from zoo patrons to the United States Congress. Reviewing informal and formal types of writing will be key when discussing how to address a specific audience.

- **Format** – The writing format should correspond with the role of the writer, the audience, and the topic. Teachers will want to step away from regular reports and essays. Let students work on writing formats such as lyrics, raps, letters, speeches, journals, fables, flyers, or even political cartoons.

- **Topic** – Topics can stem from the research students are doing within a subject, themes that are being studied in school, or subtopics within a unit that needs more clarification or enrichment. The goal is to make sure the topic is not too broad (Strayer & Strayer, 2007).
Possible Ideas for a RAFT
Choose ideas that advance the learning goals.

<table>
<thead>
<tr>
<th>Characters from a story</th>
<th>Public service job</th>
<th>Key terms</th>
<th>Scientists or politicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical figures</td>
<td>Musical instruments</td>
<td>Diseases</td>
<td>Geographic formations</td>
</tr>
<tr>
<td>Vocabulary words</td>
<td>Cartoon characters</td>
<td>Types of fabric</td>
<td>Composers or artists</td>
</tr>
<tr>
<td>Instruments or tools</td>
<td>Shapes or colors</td>
<td>Authors or inventers</td>
<td>Business or industry person</td>
</tr>
<tr>
<td>Minerals or chemical elements</td>
<td>Cities, countries or continents</td>
<td>Brand name or object</td>
<td>Technical terms</td>
</tr>
</tbody>
</table>
### Possible RAFT Formats to Differentiate by Learning Modality

<table>
<thead>
<tr>
<th>Written</th>
<th>Visual</th>
<th>Oral</th>
<th>Kinesthetic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diary entry</td>
<td>Comic</td>
<td>Song</td>
<td>Model</td>
</tr>
<tr>
<td>Bulleted list</td>
<td>Crossword puzzle</td>
<td>Monologue</td>
<td>Cheer</td>
</tr>
<tr>
<td>Obituary</td>
<td>Map</td>
<td>Radiocast</td>
<td>Mime</td>
</tr>
<tr>
<td>Invitation</td>
<td>Graphic organizer</td>
<td>Museum guide</td>
<td>Demonstration</td>
</tr>
<tr>
<td>Recipe</td>
<td>Print ad</td>
<td>Interview</td>
<td>Sales pitch</td>
</tr>
<tr>
<td>Movie critic</td>
<td>Photograph</td>
<td>Puppet show</td>
<td>with demos</td>
</tr>
<tr>
<td>FAQs</td>
<td>Fashion design</td>
<td>Political speech</td>
<td>Sew, cook, build</td>
</tr>
<tr>
<td>Editorial</td>
<td></td>
<td>Story teller</td>
<td>Wax museum</td>
</tr>
<tr>
<td>Gossip column</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Math RAFT

<table>
<thead>
<tr>
<th>Audience</th>
<th>Format</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculator</td>
<td>Math Student</td>
<td>Directions: Don’t use me to multiply and divide by base 10!</td>
</tr>
<tr>
<td>Fraction</td>
<td>Student Who Hates Fractions</td>
<td>A Friendly Note: Relax! Let me tell you a few tricks to remember when playing with my friends and me.</td>
</tr>
<tr>
<td>Teacher</td>
<td>Class</td>
<td>A Written Lesson: Did you know math is everywhere? You can not escape math!</td>
</tr>
<tr>
<td>Metric System</td>
<td>US Congress</td>
<td>Written Petition: I am far superior to your English system. You must adopt me nation wide.</td>
</tr>
<tr>
<td>Decimal Point •</td>
<td>Confused Math Student</td>
<td>Instructions: So, your confused on how to move me when you x + - and / .</td>
</tr>
</tbody>
</table>

**Directions:** Being able to calculate well is only one aspect of understanding math. When you can explain a math application or property you truly demonstrate a clear understanding of that concept. Select from one of the RAFT assignments above and write a creative response assuming that role. Remember to keep your audience in mind when you respond to the topic.

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Eric Soskil, Conway School, St. Louis, MO
## Fractions RAFT

<table>
<thead>
<tr>
<th>ROLE</th>
<th>AUDIENCE</th>
<th>FORMAT</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraction</td>
<td>Whole Number</td>
<td>Children’s Book</td>
<td>Do You Want a Piece of Me?</td>
</tr>
<tr>
<td>Fraction</td>
<td>Its Equivalents</td>
<td>Invitation and a Mask</td>
<td>Come to the Masquerade Ball!</td>
</tr>
<tr>
<td>Fraction-disguised-as-a-decimal</td>
<td>The Public</td>
<td>Wanted Poster/Warning Ad</td>
<td>Warning! This dangerous fraction is disguised as a decimal…</td>
</tr>
<tr>
<td>Fraction</td>
<td>Other Students</td>
<td>Paper People WardrobeChanges</td>
<td>What to wear when you are a fraction, decimal, and percent</td>
</tr>
</tbody>
</table>
# Other Math RAFT Ideas

<table>
<thead>
<tr>
<th>Role</th>
<th>Audience</th>
<th>Format</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exponent</td>
<td>Jury</td>
<td>Instructions</td>
<td>Laws of Exponents</td>
</tr>
<tr>
<td>Acute Triangle</td>
<td>Obtuse Triangle</td>
<td>Dear John Letter</td>
<td>Our Differences</td>
</tr>
<tr>
<td>Percent</td>
<td>Student</td>
<td>How-To Guide</td>
<td>Mental ways to calculate percent</td>
</tr>
<tr>
<td>Prime Number</td>
<td>Rational Numbers</td>
<td>Club Membership Form</td>
<td>How to Join My Club</td>
</tr>
<tr>
<td>Parts of a Graph</td>
<td>TV Audience</td>
<td>Script</td>
<td>Which of Us Is Most Important?</td>
</tr>
<tr>
<td>Plus Sign</td>
<td>Multiplication Sign</td>
<td>Romantic Card</td>
<td>Why We Go Together</td>
</tr>
</tbody>
</table>