Differentiate Up!
A Guide to Plan and Organize Differentiation
Confratute July 16, 2024

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University of Connecticut
Project BUMP UP

Funded by Jacob K. Javits Gifted and Talented Students Education Program, U.S. Department of Education PR/Award # S206A190028

• Classroom teachers and gifted specialists
• Co-planning and co-teaching
• Differentiate for mathematically advanced learners in heterogeneous 4th and 5th grade classrooms
Resources abound!

Project BUMP UP Web Page – Differentiation Resources tab
https://projectbumpup.education.uconn.edu
Typical Fifth-Grade Classroom

Source: Rambo-Hernandez, Makel, Peters, & Plucker (2020)
Why differentiate?

Math
—Gr. 3–5 student growth in math (Long et al., 2019).
—Up to 7 grade levels (Pedersen et al., 2023; Peters et al., 2017)

ELA
—Up to 9 grade levels (Firmender et al., 2012)

Standards do not eliminate the need for accelerative options (Assouline et al., 2015).

Skills, motivation, and perseverance to reach math potential (NCTM, 2000; Wilkins et al., 2016).
Overview

• Project BUMP UP A.D.O.P.T
  Differentiation Planning Guide
• Math Example
• Student Data—Curriculum Compacting
• Differentiating through
  • Alternative standards
  • Supplemental sources
  • Tiering for cognitive complexity
    • Increasing Depth of Knowledge
Del Siegle
Director of National Center for Research on Gifted Education

all doesn’t work very well with respect to shoes or clothing.
Where would you place these math learners along this continuum?

- Problem Solvers
- Consumers
- Innumerate
- Creators
- Computers
- Doers
- Problem Posers

Activity
Goals of math instruction: To move along a continuum (Sheffield, 2003)

- Innumerate
- Doers
- Computers
- Consumers
- Problem Solvers
- Problem Posers
- Creators

Beginner → Advanced
Six Principles of Differentiation

- Moderated level of challenge
- Students differ in skills and knowledge
- Interest fuels motivation, engagement
- The right to explore areas of interest
- Multifaceted learning profiles
- Safety, support, and value foster learning

–Tomlinson & Jarvis, 2009
A Classroom Range of Mathematical Ability
DIFFERENTIATION IS NOT...

JUST WHEN YOU THINK YOUR WORK IS DONE ...

LOOK! MORE WORK, MORE WORK EVERYWHERE!
Project BUMP UP A.D.O.P.T. Differentiation Log
### Advanced Differentiation Options Planning Tool

**Lesson or Unit:** ____________________________________________  

**Date(s):** ____________________________________________

**Standard(s):**

<table>
<thead>
<tr>
<th>Differentiation of Current Curriculum</th>
<th>Supplemental Source</th>
<th>Alternative Standard</th>
</tr>
</thead>
</table>
| **Differentiation option from the textbook p.**  
  # __________  
  DOK Level 3 ___ or 4 ___  
  and/or  
  DOK Differentiated math up to  
  Level 3 ___ or 4 ___  
  Brief description of differentiated activity: | **Topic:** __________  
  **Source:** __________  
  **DOK Level 3 ___ or 4 ___**  
  **Brief description of differentiated activity:** | **Grade:** __________  
  **Standard:** __________  
  **DOK Level 3 ___ or 4 ___**  
  **Brief description of differentiated activity:** |

**Notes:**
ACCELERATION

ENRICHMENT

projectbumpup.education.uconn.edu
Selecting Standards

- Higher Standards or Those You Do Not Normally Reach
## Advanced Resources Units

<table>
<thead>
<tr>
<th></th>
<th>Grade</th>
<th>K-1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tr>
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<tr>
<td><strong>Concept-Based Units</strong></td>
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<td>Polygons Galore!</td>
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<td>Beyond Base Ten</td>
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<tr>
<td>Moving Through Dimensions</td>
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<td>6-8</td>
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<tr>
<td><strong>Math Curriculum for Gifted Students</strong></td>
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<td>x</td>
</tr>
</tbody>
</table>

https://education.wm.edu/centers/cfge/curriculum/mathematics/materials/index.php
Open-ended, Real-world, Problem and Project-based Learning
Tiering for Cognitive Complexity

**ENRICHMENT**

**DOK-1**
- **Recall and Reproduction**
  - What is the knowledge?

**DOK-2**
- **Basic Application of Skills and Concepts**
  - How can the knowledge be used?

**DOK-3**
- **Strategic Thinking**
  - Why can the knowledge be used?

**DOK-4**
- **Extended Thinking**
  - How else can the knowledge be used?
Steps for Leveling-up DOK

1. Analyze
   - What is being asked of the students?
   - What is the DOK level?

2. Determine
   - Where do we see a similar concept in future standards?
   - Where can we provide less scaffolding?
   - What other questions can we ask about this problem?

3. Construct
   - Select from the standards and/or additional questions created.
   - Rewrite the problem to remove scaffolding and insert updated elements.

4. Re-Evaluate
   Now that you have leveled-up the question, re-evaluate what students are being asked to do at the new DOK level.
Student Data

Curriculum Compacting
### Student A

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
<th>Correct</th>
<th>Total</th>
<th>Proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC.7.P.11.1</td>
<td>Recognize that adding heat to or removing heat from a system may result in a temperature change and possibly a change of state.</td>
<td>3</td>
<td>5</td>
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</tr>
<tr>
<td>SC.7.P.11.2</td>
<td>Investigate and describe the transformation of energy from one form to another.</td>
<td>6</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>SC.7.P.11.3</td>
<td>Cite evidence to explain that energy cannot be created nor destroyed, only changed from one form to another.</td>
<td>1</td>
<td>3</td>
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</tr>
<tr>
<td>SC.7.P.11.4</td>
<td>Observe and describe that heat flows in predictable ways, moving from warmer objects to cooler ones until they reach the same temperature.</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

- **Overall Proficiency**: 13 / 21
- **Proficiency Level**: 13 / 21

### Student B

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
<th>Correct</th>
<th>Total</th>
<th>Proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC.7.P.11.1</td>
<td>Recognize that adding heat to or removing heat from a system may result in a temperature change and possibly a change of state.</td>
<td>5</td>
<td>5</td>
<td>100.0%</td>
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<tr>
<td>SC.7.P.11.2</td>
<td>Investigate and describe the transformation of energy from one form to another.</td>
<td>7</td>
<td>8</td>
<td>87.5%</td>
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<tr>
<td>SC.7.P.11.3</td>
<td>Cite evidence to explain that energy cannot be created nor destroyed, only changed from one form to another.</td>
<td>3</td>
<td>3</td>
<td>100.0%</td>
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<tr>
<td>SC.7.P.11.4</td>
<td>Observe and describe that heat flows in predictable ways, moving from warmer objects to cooler ones until they reach the same temperature.</td>
<td>4</td>
<td>5</td>
<td>80.0%</td>
</tr>
</tbody>
</table>

- **Overall Proficiency**: 19 / 21
- **Proficiency Level**: 19 / 21
MEETING THE NEEDS OF EVERY STUDENT?

Elementary and middle school teachers could eliminate between 40%-70% of the regular curriculum for 10%-15% of students in mixed ability classes

Reis et al. (1998)
What is compacting?

• Streamlines/eliminates regular curriculum
• Students who can complete content at a faster pace
• Time can be used to provide enrichment or acceleration

Reis et al., 2016
In the Classroom

• Class goals
  • Mastery of benchmark
  • Differentiated learning according to student level

• Meeting students’ needs
  • Pre-assess to guide instruction
  • Students who show mastery will compact out
  • Compacted students receive grades based on their demonstrated mastery and alternative work.
Name it

• What is in the unit?
• Deconstruct the standard(s)
Prove it

• Measure mastery* of content and skills

*Mastery does not mean they know everything
Prove It Examples

- Pre-test (version of the post-test)
- Open-ended large concept question
- Pre-unit challenge lesson
- Verbal questioning
- Probes
- Asking students to perform a skill
- Answer the essential question(s)
Pre-assessment

60% or above on all standards

Or

60% or above on most standards
One way the data could present

• 60% or above on all standards
  • Would benefit from instruction and practice for those elements they need
    • Formative assessment success – go on to something else
    • Formative assessment not yet – full curriculum and instruction
Another way the data could present

- Over 60% or above on 3 out of 5 standards
  - Compact out of those 3 standards
  - Provide instruction and limited practice for the additional 2 standards
    - Formative assessment success – go on to something else
    - Formative assessment not yet – full curriculum and instruction
Change it

• Advanced standards
• Supplemental sources
• Tiering for cognitive complexity
• Increasing Depth of Knowledge
Selecting Advanced Resources
William & Mary Math Units

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https://education.wm.edu/centers/cfge/curriculum/mathematics/materials/index.php
Math Curriculum for Gifted Students
Open-ended, Real-world Problem or Project-based Learning
Project- and Problem-Based Learning

Both

• Open-ended
• Authentic tasks
• Build 21st century skills
• Longer than usual lessons and assignments
Not necessary to reinvent . . .

- https://www.youcubed.org/tasks/
- https://robertkaplinsky.com/lessons/
Alternative standards

Can we can go further or deeper?
Selecting Standards You Do Not Normally Reach

- Sub-standards you do not have as much time to address
- Standards at the end of the year
Selecting Higher Grade Standards

Progression of Strands

<table>
<thead>
<tr>
<th>K</th>
<th>1</th>
<th>2</th>
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<th>4</th>
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</table>
For example...

• Gr. 4.NSO.1.1: Express how the value of a digit in a multi-digit **whole number** changes if the digit moves one place to the left or right.

• Gr. 5.NSO.1.1: Express the value of a digit in a multi-digit number with **decimals** to the thousandths changes if the digit moves one or more places to the left or right.

• Gr. 6.NSO.1.1: 1.1: Extend previous understanding of numbers to define rational numbers. **Plot, order, and compare rational numbers.**
Tiering for Cognitive Complexity

Bloom’s Taxonomy
Webb’s Depth of Knowledge
Bloom’s Revised Taxonomy
(Anderson & Krathwohl, 2002)

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

**HIGHER Order Thinking Skills**

**LOWER Order Thinking Skills**
## REVISED Bloom’s Taxonomy Action Verbs

<table>
<thead>
<tr>
<th>Definitions</th>
<th>I. Remembering</th>
<th>II. Understanding</th>
<th>III. Applying</th>
<th>IV. Analyzing</th>
<th>V. Evaluating</th>
<th>VI. Creating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bloom’s Definition</td>
<td>Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.</td>
<td>Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.</td>
<td>Solve problems by applying acquired knowledge, facts, techniques and rules in a different way.</td>
<td>Examine and test information by identifying motives or causes. Make inferences and find evidence to support generalizations.</td>
<td>Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.</td>
<td>Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.</td>
</tr>
</tbody>
</table>

### Verbs
- **Choose**
- **Define**
- **Find**
- **How**
- **Label**
- **List**
- **Match**
- **Name**
- **On it**
- **Recall**
- **Relate**
- **Select**
- **Show**
- **Spell**
- **Tell**
- **What**
- **When**
- **Where**
- **Which**
- **Why**

- **Build**
  - **Choose**
  - **Compare**
  - **Contrast**
  - **Contradict**
  - **Construct**
  - **Develop**
  - **Explain**
  - **Integrate**
  - **Interpret**
  - **Outline**
  - **Relate**
  - **Replicate**
  - **Show**
  - **Summarize**
  - **Translate**

- **Construct**
  - **Analyze**
  - **Assume**
  - **Categorize**
  - **Classify**
  - **Compare**
  - **Conclude**
  - **Conclude**
  - **Create**
  - **Decide**
  - **Deduce**
  - **Define**
  - **Devise**
  - **Determine**
  - **Disagree**
  - **Disprove**
  - **Distinguish**
  - **Divide**
  - **Examine**
  - **Exhibit**
  - **Exhibit**
  - **Function**
  - **Infer**
  - **Infer**
  - **List**
  - **Motivate**
  - **Relate**
  - **Relationships**
  - **Simplify**
  - **Survey**
  - **Take part in**
  - **Test for**
  - **Theme**

- **Interpret**
  - **Judge**
  - **Justify**
  - **Mark**
  - **Measure**
  - **Opinion**
  - **Perceive**
  - **Prioritize**
  - **Prove**
  - **Rate**
  - **Recommend**
  - **Rule on**
  - **Select**
  - **Support**
  - **Value**

- **Explain**
  - **Agree**
  - **Approve**
  - **Assess**
  - **Arrange**
  - **Classify**
  - **Compare**
  - **Conclude**
  - **Conclude**
  - **Create**
  - **Delete**
  - **Design**
  - **Develop**
  - **Discuss**
  - **Elaborate**
  - **Estimate**
  - **Examine**
  - **Estimate**
  - **Evaluate**
  - **Explain**
  - **Happen**
  - **Improve**
  - **Invent**
  - **Judge**
  - **Make up**
  - **Maximize**
  - **Minimize**
  - **Modify**
  - **Original**
  - **Originate**
  - **Plan**
  - **Predict**
  - **Propose**
  - **Provide**
  - **Solve**
  - **Suppose**
  - **Test**
  - **Theory**

---

Overlap

Context matters: DOK
Webb’s Depth of Knowledge (Webb, 1997)

• Number of connections of concepts
• Factors that influence cognitive demands
• One step
• Recall or find
• Simple algorithm or a formula
• Key words “identify,” “recall,” “recognize,” “use,” and “measure.” (Webb, 2002, p. 3)

EXAMPLE:
Recognize that $700 \div 70 = 10$ by applying concepts of place value and division
• Processing beyond a habitual response
• Decisions on solving
• Not just more than one step; more than one concept
• Visualization and probability skills (Webb, 2002, p. 4)

EXAMPLE:

**DOK Level 2:** Jess uses powers of 10 and exponents to find the product of the following terms. What are the products?

0.5 \times 10^5 = \underline{\hspace{2cm}} \quad 0.05 \times 10^5 = \underline{\hspace{2cm}}
• Requires reasoning, planning, using evidence, and a higher level of thinking
• Complex and abstract
• More than one possible answer
• Justify the response
• Draw conclusions
• Cite evidence (Webb, 2002, p. 4)

EXAMPLE:

DOK Level 3: **Explain why** $700 \div 70 = 10$, including the role of place value in doing the division.
• Complex reasoning
• Extended time
• High cognitive demands
• Several connections
• Synthesizing (Webb, 2002, p. 4)

EXAMPLE:

**DOK Level 4:** For our annual food drive, we must figure out how to ship over 400 cans. Decide the best shipping method (crates, cases, or individual boxes) to use as few packages as possible. Write a letter to the principal projecting the amount of money the school will spend shipping the packages. Justify the most efficient packaging and shipping methods. (DeKalb County School District, n.d.)
BLOOM’S TAXONOMY

Verbs

WEBB’S DEPTH OF KNOWLEDGE

Context; What follows the verbs

Math Content Standards & Math Practices

<table>
<thead>
<tr>
<th>Depth + Thinking</th>
<th>Level 1 Recall &amp; Reproduction</th>
<th>Level 2 Skills &amp; Concepts (routine applications)</th>
<th>Level 3 Strategic Thinking (support with data, equations, models, etc.)</th>
<th>Level 4 Extended Thinking (across domains)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remember</td>
<td>Know math facts, terms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand</td>
<td>Attend to precision</td>
<td>Model with mathematics, estimate, predict, observe, explain relationships</td>
<td>Construct viable arguments, geometry proof</td>
<td>Integrate concepts across domains</td>
</tr>
<tr>
<td>Apply</td>
<td>Calculate, measure, make conversions</td>
<td>Make sense of routine problems</td>
<td>Make sense of non-routine problems</td>
<td>Design &amp; conduct a project</td>
</tr>
<tr>
<td>Analyze</td>
<td>Identify a pattern</td>
<td>Use tools strategically</td>
<td>Reason abstractly</td>
<td>Analyze multiple sources of evidence</td>
</tr>
<tr>
<td>Evaluate</td>
<td>Locate information in table</td>
<td>Classify, organize data, extend a pattern</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create</td>
<td></td>
<td>Critique the reasoning of others</td>
<td></td>
<td>Design a complex model</td>
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Depth + Thinking

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<tbody>
<tr>
<td>Remember</td>
<td>What is slope?</td>
<td>Explain how you solved this problem.</td>
<td>Construct an argument to show equivalence using area, set, and linear models</td>
</tr>
<tr>
<td>Understand</td>
<td>Read, write, and represent these fractions</td>
<td>Make and explain your estimate</td>
<td></td>
</tr>
<tr>
<td>Apply</td>
<td>Convert this fraction to a decimal</td>
<td>Use these data to graph your solution</td>
<td>Conduct the investigation, interpret results, and support conclusions with data</td>
</tr>
<tr>
<td>Analyze</td>
<td>What kind of graph or model is this?</td>
<td>Which graph shows how the data would be displayed?</td>
<td>Interpret what was happening in the event? Justify your interpretation using what you know about slope</td>
</tr>
<tr>
<td>Evaluate</td>
<td>Which team is the best? (opinion without supporting evidence)</td>
<td>How would you rank these ___? Justify your rankings using data that supports your criteria,</td>
<td>Some say the NFL settlement for player brain injury is not adequate. Evaluate both sides using data to determine the validity of this claim</td>
</tr>
<tr>
<td>Create</td>
<td>Create a card game using fractions. Create scenario explained by a data display.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

https://www.karin-hess.com/free-resources
DOK at a Glance

One correct solution?
DOK 1
• Know or can find it (or not)
DOK 2
• More than one concept
• If/then; cause/effect

More than one correct solution requiring evidence?
DOK 3
• Interpret
• Reasoning (how and why)
DOK 4
• DOK 3
• Additional sources
• Initiate and complete project
Standard and Samples

DOK 1-4
Whole Numbers – Gr. 4

• **Use** place value understanding to round multi-digit whole numbers to any place.

Q: What is the highest DOK Level?

A: DOK 1: Recall
**Whole Numbers – Gr. 4**

**DOK Level 1: What is 62,891 rounded to the nearest thousands?**
(a) 60,000 
(b) 62,000 
(c) 62,900 
(d) 63,000 
(e) 70,000 

**DOK Level 2: Round the following numbers to the nearest tenth: 10.892 and 112.429**

**DOK Level 3: A teacher asked her students to use estimation to decide if the sum of the problem below is closer to 4,000 or 5,000.**

496 + 1,404 + 2,605 + 489 =

One student replied that she thinks the sum is closer to 4,000. She used the estimation shown below to support her reasoning.

Is the student’s reasoning correct? Explain why or why not. If the reasoning is incorrect, explain how she should have estimated it.

**DOK Level 4: Create a plan** to reach out to family, friends, and neighborhood members to gather data about the number of pictures they have hanging in their homes. Create a table to display the information you collect. Then decide what place value you should round to that would allow you to showcase who has most pictures and least pictures hung up in their house. Construct a poster to share your findings.
Project BUMP UP’s Leveling Up DOK 3-Step Approach

Grade 4
28 Standards
- Level 1 — 9
- Level 2 — 18
- Level 3 — 1
- Level 4 — 0

Grade 5
26 Standards
- Level 1 — 8
- Level 2 — 17
- Level 3 — 1
- Level 4 — 0
1. Analyze

- What is being asked of the students?
- What is the DOK level?

2. Determine

- Where do we see a similar concept in future standards?
- Where can we provide fewer supports?
- What other questions can we ask about this problem?

3. Construct

- Select from the standards and/or additional questions created.
- Rewrite the problem to remove supports and insert updated elements.

4. Re-Evaluate

Now that you have leveled-up the question, re-evaluate what students are being asked to do at the new DOK level.
Steps for Leveling-up DOK

1. Analyze
   - What is being asked of the students?
   - What is the DOK level?

2. Determine
   - Where do we see a similar concept in future standards?
   - Where can we provide fewer supports?
   - What other questions can we ask about this problem?

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1. Analyze
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   • Select from the standards and/or additional questions created.
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   Now that you have leveled-up the question, re-evaluate what students are being asked to do at the new DOK level.
2. Determine

- Where do we see a similar concept in future standards?
- Where can we provide fewer supports?
- What other questions can we ask about this problem?

3. Construct

- Select from the standards and/or additional questions created.
- Rewrite the problem to remove supports and insert updated elements.

4. Re-Evaluate

Now that you have leveled-up the question, re-evaluate what students are being asked to do at the new DOK level.

Steps for Leveling-up DOK

1. Analyze

- What is being asked of the students?
- What is the DOK level?
Myra read 45 pages of her 100-page book. Her sister read ½ of a 10-page book. Who read a greater fraction of her book, Myra or her sister? Show your work.

Hint: One fraction has a denominator of 100. The other fraction has a denominator of 10.
Currently, what is this question asking the student to do?

• Compare fractions

Myra read 45 pages of her 100-page book. Her sister read ½ of a 10-page book. Who read a greater fraction of her book, Myra or her sister? Show your work.

*Hint: One fraction has a denominator of 100. The other fraction has a denominator of 10.*
Currently, what is the DOK of this problem?

- DOK 2: Converting the fractions to those with similar denominators and then comparing the two fractions.

Myra read 45 pages of her 100-page book. Her sister read ½ of a 10-page book. Who read a greater fraction of her book, Myra or her sister? Show your work.

*Hint: One fraction has a denominator of 100. The other fraction has a denominator of 10.*
Looking Ahead: When will we see a similar concept like this in the future?

• Mixed fractions
• Conversions to decimals

Myra read 45 pages of her 100-page book. Her sister read ½ of a 10-page book. Who read a greater fraction of her book, Myra or her sister? Show your work.

*Hint: One fraction has a denominator of 100. The other fraction has a denominator of 10.*
Where can we provide fewer supports for students?

- Eliminate the hint

Myra read 45 pages of her 100-page book. Her sister read ½ of a 10-page book. Who read a greater fraction of her book, Myra or her sister? Show your work.

Hint: One fraction has a denominator of 100. The other fraction has a denominator of 10.
What other questions can we ask about this problem?

• Show two ways to answer the question, “Who read the greater fraction of her book, Myra or her sister?”
• How many pages would one sister have to read to equal the fraction the other sister read?
• Justify which sister read a greater portion of her book with evidence.
• Change the numbers for more complexity (e.g., 73 pages out of 192-page book and 1/8 of a 212-page book.)
How can we implement these questions? (Building the new problem)

New Problem


• Who read a greater fraction of her book, Myra or her sister? Provide evidence for your answer.

The sister who read less wants to catch up and read the same fraction as the other sister.

• How many more pages would the sister need to read to catch up? Explain your answer in two ways.
Now, what is this question asking the student to do?

(This should be the same as the original question/task.)

• Compare fractions
Now, what is the DOK of this problem?

(DOK should increase & look at Bloom’s Taxonomy)

• DOK 3
  • Explain their thinking
  • Another way to approach the problem
  • Compare answers
  • Analyze their responses.
Gr. 5 Problem

1 kilogram is equivalent to 1,000 grams. How many grams are in 3.5 kilograms?

Circle the letter of the correct answer.

A. 0.35 grams
B. 3.5 grams
C. 350 grams
D. 35,000 grams

Rounding choice: Does the correct answer sound like the correct answer?
Carter has a pack of 800 rubber bands. Alicia has twice as many rubber bands as Carter. They combine their rubber bands so that they can make bracelets. Each bracelet needs 100 rubber bands. Which equation below can be used to find how many bracelets they can make?

A (800 x 2) ÷ 100
B (800 x 3) ÷ 100
C (800 ÷ 100) x 2
D (800 x 100) ÷ 3

Jon chose A as the correct answer. How did he get that answer?
Deciding on advanced options...

Putting It All Together
<table>
<thead>
<tr>
<th>Lesson or Unit</th>
<th>Date(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Standard(s):**

### Advanced Differentiation Options

<table>
<thead>
<tr>
<th>Differentiation of Current Curriculum</th>
<th>Supplemental Source</th>
<th>Alternative Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation option from the textbook p.</td>
<td>Topic:</td>
<td>Grade, Standard</td>
</tr>
<tr>
<td>#</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOK Level 3 or 4</td>
<td>Source:</td>
<td>DOK Level 3 or 4</td>
</tr>
<tr>
<td>and/or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOK Differentiated math up to</td>
<td>Brief description of differentiated activity:</td>
<td></td>
</tr>
<tr>
<td>Level 3 or 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. Examine the activity.

2. Decide if the activity is advanced. *If it is not...*

3. Advance!
   - Increase complexity
   - Select an advanced standard
   - Choose from a supplemental source
<table>
<thead>
<tr>
<th>Textbook Activity</th>
<th>Advanced?</th>
<th>Make it more challenging?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write directions on how to draw a rectangle pp. 238-39</td>
<td>No! Six scaffolds provide students important details on rectangles. Makes it too easy.</td>
<td>Reduce scaffolding provided in parts a-f.</td>
</tr>
<tr>
<td>Differentiation of Current Curriculum</td>
<td>Supplemental Source</td>
<td>Alternative Standard</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Differentiation option from the textbook p. <strong>12</strong> # <strong>30</strong></td>
<td>Topic: ______________</td>
<td>Grade ____ Standard _______</td>
</tr>
<tr>
<td>DOK Level 3 <strong>X</strong> or 4 ____</td>
<td>Source: ______________</td>
<td>DOK Level 3 ____ or 4 ____</td>
</tr>
<tr>
<td>and/or</td>
<td>DOK Level 3 ____ or 4 ____</td>
<td>Brief description of differentiated activity:</td>
</tr>
<tr>
<td>DOK Differentiated math up to</td>
<td>Brief description of differentiated activity:</td>
<td></td>
</tr>
<tr>
<td>Level 3 ____ or 4 ____</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Lesson 1 - Removed scaffolding**
<table>
<thead>
<tr>
<th>Textbook Activity</th>
<th>Advanced?</th>
<th>Make it more challenging?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorting Shapes on Side and Angles pp. 352-355</td>
<td>Parallel and perpendicular sort: lower-level questions; Repetitive of sorting activities on pp. 352, 354</td>
<td>2.2 Advanced Activity: Gr. 5 Ready Textbook pp. 323-324</td>
</tr>
<tr>
<td>Differentiation of Current Curriculum</td>
<td>Supplemental Source</td>
<td>Alternative Standard</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Differentiation option from the textbook p. _____ # _______</td>
<td>Topic: ______________________</td>
<td>Grade ___ Standard ___ G.2.3</td>
</tr>
<tr>
<td>DOK Level 3 _____ or 4 ____</td>
<td>Source: ______________________</td>
<td>DOK Level 3 _____ or 4 ____</td>
</tr>
<tr>
<td>and/or</td>
<td>DOK Level 3 _____ or 4 ____</td>
<td>Brief description of differentiated activity:</td>
</tr>
<tr>
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</tr>
<tr>
<td>Level 3 _____ or 4 ____</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lesson 2 - Gr. 5
Textbook pp. 323-324
<table>
<thead>
<tr>
<th>Textbook Activity</th>
<th>Advanced?</th>
<th>Make it more challenging?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation of Current Curriculum</td>
<td>Supplemental Source</td>
<td>Alternative Standard</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Differentiation option from the textbook p. ____ # _____</td>
<td>Topic: Symmetry</td>
<td>Grade _____ Standard __________</td>
</tr>
<tr>
<td>DOK Level 3 _____ or 4 _____</td>
<td>Source: W&amp;M Beyond Polygons</td>
<td>DOK Level 3 _____ or 4 _____</td>
</tr>
<tr>
<td>and/or</td>
<td></td>
<td>Brief description of differentiated activity:</td>
</tr>
<tr>
<td>DOK Differentiated math up to</td>
<td>Brief description of differentiated activity:</td>
<td></td>
</tr>
<tr>
<td>Level 3 _____ or 4 _____</td>
<td>Lesson 3 Gr. 3 Lesson 5.2 pp. 207-209: Analyzing lines of symmetry and formulating a pattern/rule about lines of symmetry and the number of sides shapes have.</td>
<td></td>
</tr>
<tr>
<td>Brief description of differentiated activity:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Textbook Activity</td>
<td>Advanced?</td>
<td>Make it more challenging?</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Introduction, modeled and guided practice of folding shapes.</td>
<td>Quick exploration of folding shapes is an introduction to symmetry. Not much opportunity to understand a real-world example.</td>
<td>MiA Advanced Activity: Georgia Culminating Task Geometry Town pp. 90-97</td>
</tr>
<tr>
<td>Independent Practice of polygon question</td>
<td>Questions are regular-polygon specific and involve identification.</td>
<td></td>
</tr>
<tr>
<td>Differentiation of Current Curriculum</td>
<td>Supplemental Source</td>
<td>Alternative Standard</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>---------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Differentiation option from the textbook p. ____ # _____</td>
<td>Topic: polygons</td>
<td>Grade ____ Standard ________</td>
</tr>
<tr>
<td>DOK Level 3 _____ or 4 _____ and/or</td>
<td>Source: Georgia Curriculum Frameworks</td>
<td>DOK Level 3 _____ or 4 _____</td>
</tr>
<tr>
<td>DOK Differentiated math up to Level 3 _____ or 4 _____</td>
<td>Brief description of differentiated activity: Lesson 4 - Geometry Town pp. 90-97 <a href="https://www.georgiastandards.org/Georgia-Standards/Frameworks/4th-Math-Unit-6.pdf">https://www.georgiastandards.org/Georgia-Standards/Frameworks/4th-Math-Unit-6.pdf</a></td>
<td>Brief description of differentiated activity:</td>
</tr>
<tr>
<td>Brief description of differentiated activity:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Multiple differentiation options in one topic/unit:

<table>
<thead>
<tr>
<th>Differentiation of Current Curriculum</th>
<th>Advanced Differentiation Options</th>
<th>Supplemental Source</th>
<th>Alternative Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td><strong>polygons</strong></td>
<td></td>
<td>Grade 5 Standard G.2.3</td>
</tr>
<tr>
<td>DOK Level 3 ___ or 4 ___</td>
<td></td>
<td>Georgia Curriculum Frameworks</td>
<td>DOK Level 3 ___ or 4 ___</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Brief description of differentiated activity:</td>
</tr>
</tbody>
</table>

| Brief description of differentiated activity: |
| Lesson 4 - Geometry Town pp. 90-97 |

| Symmetry W& M Beyond Polygons |
| Lesson 3 Gr. 3 Lesson 5.2 pp. 207-209: Analyzing lines of symmetry and formulating a pattern/rule about lines of symmetry and the number of sides shapes have. |

| Lesson 2 - Gr. 5 |
| Ready Textbook pp. 323-324 |

**Lesson 1 - Removed scaffolding**
Plus-Minus-Interesting

Work with others to determine what is a plus, minus, or interesting about each differentiation option on ADOPT Differentiation Log.

<table>
<thead>
<tr>
<th>Differentiation Strategies</th>
<th>Plus</th>
<th>Minus</th>
<th>Interesting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Curriculum Standard or One You Do Not Typically Reach</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced Differentiation Option in Textbook</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leveling Up Depth of Knowledge (DOK) to Level 3 or Level 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternative Resources (Published Curriculum or Vetted Online Sources)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Debrief

<table>
<thead>
<tr>
<th>Differentiation Strategies</th>
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<td>Alternative Resources (Published Curriculum or Vetted Online Sources)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Thank you!
Interested in sharing what your district does for subject-specific acceleration?

• The National Center for Research on Gifted Education is conducting a research study to document and disseminate information on how school districts implement subject acceleration. We would like to conduct online interviews (~ 1 hour) with knowledgeable administrators from school districts who have systematic procedures in place for subject acceleration. Scan the QR code or contact Catherine Little at catherine.little@uconn.edu to learn more.
Seeking schools interested in doing acceleration better?

NCRGE is seeking schools serving grades 2-5 interested in **FREE PROFESSIONAL LEARNING OPPORTUNITIES** and assistance in making acceleration decisions.

ncrge.uconn.edu/acceleration
Renzulli Executive Functioning Scale (REFS)

- Task Initiation
- Task Persistence
- Organization
- Self-reflection/Awareness
- Emotional Regulation
- Collaboration
- Self-advocacy
You can assist in the creation of the new

**Renzulli Executive Functioning Scale**

*Grade 4-8 students will assess their…*

1. ability to start tasks (e.g., I like starting new things),
2. ability to stay on task (e.g., I finish what I start)
3. organization (e.g., My desk is cleaned and organized)
4. awareness of strengths and weaknesses (e.g., I know what I can do well)
5. self-advocacy (e.g., I am not afraid to stand up for myself)
6. ability to collaborate (e.g., I work well with others)
7. awareness of ability to manage emotions (e.g., I can calm myself down when I am upset.)

Parents – s.uconn.edu/refs

Teachers – s.uconn.edu/renzulliscale
A TASTE OF CONFRATUTE

• Thursday, October 24: Special Event: Schoolwide Enrichment Model Overview
• Wednesday, January 29: Taste of Confratute: Thinking Skills
• Wednesday, February 26: Taste of Confratute: Social and Emotional Learning and Underachievement
• Wednesday, March 26: Taste of Confratute: Strength-Based Learning