

**GEORGE MASON UNIVERSITY  
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT  
GRADUATE SCHOOL OF EDUCATION  
MATHEMATICS EDUCATION LEADERSHIP**

**EDCI 645 DL1 (Tuesday) / EDCI 645 DL2 (Thursday)**  
**Curriculum Development in Mathematics Education**  
3 credits, Fall 2013  
4:30 – 7:10 p.m., Online with Two F2F sessions

Instructor: Dr. Pamela R. H. Bailey  
Office Hours: By appointment  
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**COURSE DESCRIPTION:**

- A. Prerequisite:** Admission to the Mathematics Education Leadership Master's Degree Program
- B. Catalog Course Description:** Analysis, design, and evaluation of school mathematics curricula. Yearlong seminar for master's-level students in mathematics education leadership cohort program.
- C. Expanded Course Description:** EDCI 645 is designed to enable mathematics education leaders to evaluate mathematics curriculum materials appropriate for school mathematics. See also Learner Outcomes and Professional Standards.

**LEARNER OUTCOMES:**

This course is designed to enable students to:

1. Identify standards-based school mathematics curriculum projects K-8; Analyze key characteristics of outstanding curriculum materials for school mathematics.
2. Examine learning theories that have been influential in mathematics education and identify ways those theories have been translated into curriculum materials and strategies for teaching.
3. Evaluate commercially developed school mathematics curriculum materials to make informed choices.
4. Present and discuss a set of school mathematics curriculum materials in depth.
5. Design a small curriculum project based on key design principles.

**PROFESSIONAL STANDARDS (National Council of Teachers of Mathematics):**

The course follows the NCTM NCATE *Standards for Elementary Mathematics Specialists (2012)*.

In your role as a teacher, lead teacher, and/or coach/mentor, elementary mathematics specialist candidates:

- 3a)** Apply knowledge of curriculum standards for elementary mathematics and their relationship to student learning within and across mathematical domains in teaching elementary students and coaching/mentoring elementary classroom teachers.

- 4b) Plan, create, and coach/mentor teachers in creating developmentally appropriate, sequential, and challenging learning opportunities grounded in mathematics education research in which students are actively engaged in building new knowledge from prior knowledge and experiences.
- 4c) Incorporate knowledge of individual differences and the cultural and language diversity that exists within classrooms and include and assist teachers in embracing culturally relevant perspectives as a means to motivate and engage students.
- 4d) Demonstrate and encourage equitable and ethical treatment of and high expectations for all students.
- 4e) Apply mathematical content and pedagogical knowledge in the selection, use, and promotion of instructional tools such as manipulatives and physical models, drawings, virtual environments, presentation tools, and mathematics-specific technologies (e.g., graphing tools and interactive geometry software); and make and nurture sound decisions about when such tools enhance teaching and learning, recognizing both the insights to be gained and possible limitations of such tools.
- 6d) Demonstrate mathematics-focused instructional leadership through actions such as coaching/mentoring; building and navigating relationships with teachers, administrators, and the community; establishing and maintaining learning communities; analyzing and evaluating educational structures and policies that affect students' equitable access to high quality mathematics instruction; leading efforts to assure that all students have opportunities to learn important mathematics; *evaluating the alignment of mathematics curriculum standards, textbooks, and required assessments and making recommendations for addressing learning and achievement gaps*; developing appropriate classroom or school-level learning environments; and *collaborating with school-based professionals to develop evidence-based interventions for high and low-achieving students*.

**REQUIRED TEXTS:**

Tomlinson, C. A., Imbeau, M. B. (2010). *Leading and managing a differentiated classroom*. Alexandria, VA: ASCD.

Stein, M. K., Smith, M. S., Henningsen, M. A., & Silver, E. A. (2009). *Implementing standards-based mathematics instruction: A casebook for professional development* (2nd ed.). New York and Reston, VA: Teachers College Press and National Council for Teachers of Mathematics.

Virginia Standards of Learning

Additional readings will be posted on the course Blackboard 9.1 site ([mymason.gmu.edu](http://mymason.gmu.edu)). You will need your GMU email login and password to access.

**FORMAT**

The class sessions will meet online through Blackboard at the specified times. The first and last class will meet face-to-face.

DL1 Tuesday class:      Aug 27 4:30-7:10 Student Union 1 3A  
    Dec 3 4:30-7:10 Student Union 1 3A

DL2 Thursday class:      Aug 29 4:30-7:10 Johnson Center 333 Meeting Room D  
    Dec 5 4:30-7:10 Johnson Center 325 Meeting Room A

It is imperative that all be online and ready to participate during class times. You will need to log on a few minutes prior to start time in order to set up audio.

## COURSE ASSIGNMENTS AND EXAMINATIONS:

### ASSIGNMENT DESCRIPTIONS:

#### 1. PARTICIPATION

- a) A commitment to participation in class discussions and activities. The quality of this course depends heavily and primarily on the regular attendance and participation of all involved. Participation will include taking part in discussions informed by critical reading and thinking, leading discussions about selected mathematics problems, and sharing with the class the products of various writing, reflection, lesson planning, and field experience assignments. The expectations, demands and workload of this course are professional and high.
- b) A commitment to **reading** reflectively and critically the assigned readings. The readings will be used to provide a framework and coherent theme to the course content. They have been selected to introduce themes in curricular development as well as research and critical commentary on mathematics curriculum. *For each reading select 3 statements that resonate with you about your beliefs or expectations. Be ready to share in class.*

#### 2. PHOTO-NARRATIVE PROJECT

Submission: Blackboard Discussion Board

The goal of the project is to take a series of photos (4) that tell the story of mathematics teaching and learning in your school and/or community. Two pictures should illustrate factors that help the teaching and learning of mathematics; two pictures should illustrate factors that hinder the teaching and learning of mathematics.

Write a ½ to 1 page description of the photo referring to your goals and objectives for teaching and learning mathematics, possible connections between the photos, and the topics discussed in this course.

Grading:

Goals/objectives for the ideal curriculum.	/5 pts.
Each photo with description about how it helps or hinders the teaching of learning of mathematics 5 pts. each	/20 pts
1/2 to 1 page description of how the photos relate to the goals and objectives for teaching and learning mathematics, possible connections between the photos, and addressing all student learning needs.	<u>/15 pts</u>
Total	/40 pts.

#### 3. MATHEMATICS SPECIALIST WIKI COLLECTION

(NCTM NCATE 3a, 4b, 4c, 4d, 4e)

Submission: <http://pbailey2.pbworks.com/> AND [www.taskstream.com](http://www.taskstream.com)

Begin a collection of resources addressing the following items. For each, title the item with *Last name, First Name, item name*. Also at the top of each please state the goals/objectives of the ideal curriculum you are basing your items on for this assignment. All are to be submitted to <http://pbailey2.pbworks.com/> so other class members may also share in your efforts. The collection should also be uploaded to taskstream for assessment. ([www.taskstream.com](http://www.taskstream.com)). See rubric.

- a. **Math Teaching Tip** - Explain a teaching strategy, must be related to mathematics (i.e., not a general classroom management strategy or solution). This could be related to the process

standards or mathematical practices and is to be grounded in research. (*NCTM NCATE 3a, 4b*)

- b. **Great Articles and Books** - Write a review/description of one of your favorite articles or books about math teaching. Explain how you might use the ideas in the article in the development of curriculum and to demonstrate and encourage equitable and ethical treatment of and high expectations for all students.. (*NCTM NCATE 3a, 4d*)
- c. **Technology Implementation** - Describe a technology tool and create a handout you could give to teachers about the tool. This could include virtual manipulatives, calculators, SmartBoard tools or computer/mobile devices that can support students' mathematics learning. Reflect on how the tool will enable students to meet the goals/objectives of a curriculum grounded in research that will actively engage students in building knowledge while maintaining equitable and ethical treatment/experiences. Insights to be gained and possible limitations of using the tool are included in the reflection. (*NCTM NCATE 3a, 4b, 4d, 4e*)
- d. **Diverse Learners** - Describe a strategy you use for differentiation with diverse learners (e.g., ELL, special education, remediation, gifted, cultural aspects,...). How do you incorporate it into teaching? How can it be adjusted across grade levels? How does it enable the students to meet the goals/objectives of the curriculum? The strategy is to be grounded in research, take into consideration individual differences and cultural and language diversity, and promotes equitable and ethical treatment of and high expectations for all students. (*NCTM NCATE 3a, 4b, 4c, 4d*)

#### 4. **CURRICULUM ANALYSIS PROJECT** (*NCTM NCATE 6d*)

Submission: [www.tasksteam.com](http://www.tasksteam.com)

Ideal, Implemented, and Analysis of Role as Math Coach to be submitted on Taskstream. Part of your work as a mathematics specialist will be to understand the materials the teachers in your classrooms are currently using. This assignment will include in three phases. See rubric.

##### **Phase I – Ideal Curriculum (Materials Currently Used)**

This portion of the assignment asks you to determine what materials are currently in use at one school for one of two grade bands (either K-5 or 3-8). Working as mathematics specialists requires you to understand not only the mathematics of the grade levels at your school but also the development of mathematics vertically. In addition to the textbooks, collect materials such as pacing guides, standards documents, additional frameworks, and any other materials that should be aligned with the textbooks and support teachers' implementation of the content. To examine the alignment, select two different mathematics topics and look across the documents to understand how the topics are addressed. Write a summary of your findings including the following sections.

1. Basic description of the textbook(s) (publisher, publication date, grade levels).  
Description of the overarching philosophy or theory behind the textbooks in terms of teaching and learning (i.e., what is the foundational approach the books are taking?).
2. Basic description of all the other supporting materials (publisher, publication date, grade levels). Description of the overarching philosophy or theory behind the materials in terms of teaching and learning (i.e., what is the foundational approach the items are taking?).
3. For each topic you selected, are the materials well aligned to the standards or not?
  - a. Does the location of the topic in the materials make sense (e.g., are the prerequisites appropriate? Is there a natural connection to the preceding and following topics)?
  - b. Are additional topics (or aspects of your topic) beyond the standards covered by the materials?
  - c. Are there any components of the topic that are missing from the materials?

4. Are the materials easy to understand and follow for students? Do the activities make sense?
5. What are advantages and disadvantages of the materials for the teacher?

### **Phase II – Implemented Curriculum (Teacher Interview)**

6. For this portion of the study, you will interview two teachers (who should remain anonymous) about how they use the materials for planning and instruction. The teachers should be from the grade levels you reviewed in phase I. The interviews should be 30-45 minutes. You should gather their impressions of the materials. Questions could include the following:
  - a. Do they like the textbooks and supporting materials they use? Why or why not?
  - b. Do they like the other materials they use? Why or why not?
  - c. How do they intermingle all materials available to use in the classroom?
  - d. What would they do to improve the materials?
  - e. If, when, and how do they supplement the available materials with other math activities?
  - f. If the teacher is using more than one textbook series, how are they used together?

Summarize the teachers' comments in less than 5 pages. This summary is not meant to be a transcript of their words (though you may include select comments or quotes) but rather a description of their responses.

### **Phase III – Ideal and Implemented Curriculum (Combined Analysis)**

Using your results from phases I and II, respond to the following questions.

7. How is the ideal curricula implemented by the teachers?
8. Does the implemented curricula meet the expectations of the ideal curriculum?
9. Thinking as a mathematics specialist or coach, for the teachers you interviewed, how would you proceed in working with them based on their responses? What suggestions would you have for them to help their teaching? What resources might they need to support their teaching?

## **5. CLASS CONSTRUCTED CURRICULUM TASKS**

(*NCTM NCATE 3a, 4b, 4c, 4d, 4e, 6d*)

Submission: <http://edci645curriculumtasks.pbworks.com/> AND [www.taskstream.com](http://www.taskstream.com)

A common challenge math specialists face is finding good problems and tasks for teachers to use with their students. As a whole class project, we are going to construct a curriculum (in this case, a collection of tasks) addressing a blend of the four content strands (number, algebra, geometry, data analysis) and different mathematical practices (reasoning, problem solving, proof, representations).

Each collection should include tasks for the assigned grade band and should include descriptions of how the task could be used with multiple grade levels within the grade band. The **Wiki** for creating the curriculum will be shared by both sections of the course so you'll have access to even more resources. <http://edci645curriculumtasks.pbworks.com/>  
Materials will be peer reviewed by your classmates and then revised.

We will brainstorm topics, practices, special groups during the first class and then get into groups assigned to a specific set. *Each person within the group will be responsible for two tasks and expected to try one of the tasks in your classroom.*  
See Rubric.

Tasks submitted to the wiki should include the following:

- Grade level
- Major concept
- Technology (if it will enhance learning)
- Objectives/goals for the task
- Prerequisite knowledge
- Teacher notes
  - Are extensive and sufficient for teachers to follow and apply with students.
  - Explains how the task addresses differentiation/diversity
  - Provides modifications for other grade levels in your grade band
- Student handout

**Turned in on taskstream** ([www.taskstream.com](http://www.taskstream.com)) will be the above submission that was taught in the classroom AND a reflection about the experience. The reflection should address the following:

- What went well with the task (justified)
- What did not go well with the task (justified)
- Strategies intended for student to use
- Strategies the students did use in addition to what was expected
- Two student work samples – annotations addressing their work and how it related to the task expectations.

Each group will **present** during the last class (it will be face-to-face) an overview of their collection of tasks, goals/objectives/overview of a task(s), and how it may be modified for usage in vertical alignment.

**ASSIGNMENT AND EXAMINATION WEIGHTING:**

Participation	30	10%	
Photo-Narrative Project	40	10%	Discussion Board (BB)
Mathematics Specialist Wiki Collection	24	25%	Wiki / Taskstream
Curriculum Analysis Project	27	30%	Taskstream
Class Constructed Curriculum Tasks	33	25%	Wiki / Taskstream

Instructions for using TaskStream are available on the course MyMason site.

**GRADING POLICY (Graduate Grading Scale)**

- |            |            |             |
|------------|------------|-------------|
| A 93%-100% | B+ 87%-89% | C 70%-79%   |
| A- 90%-92% | B 80%-86%  | F Below 70% |

**OTHER EXPECTATIONS:**

The assignments are intended to develop skills in mathematics curriculum analysis and evaluation, and the ideal and implemented curriculum. Students conduct in-depth study of mathematics curriculum materials, relate materials to goals and objectives of the ideal curriculum, and present an evaluation of their findings. Discussions will be focused on the nature and development of curriculum in schools. All assignments are to be completed on time so that class members might benefit from the expertise and contributions of their colleagues.

This course is dependent on both class discussion and participation in all class activities and assignments.

Assignments are due as specified in the schedule. Assignments turned in late will result in lower scores.

### **PERFORMANCE-BASED ASSESSMENTS:**

The following are considered performance-based assessments:

- Mathematics Specialist Wiki Collection
- Curriculum Analysis Project
- Class Constructed Curriculum Tasks

Rubrics may be found at the end of the syllabus.

### **TASKSTREAM REQUIREMENTS:**

Every student registered for any Mathematics Education Leadership course with a required performance-based assessment is required to submit these assessments, Mathematics Specialist Wiki Collection, Curriculum Analysis Project, and the Class Constructed Curriculum Tasks to TaskStream (regardless of whether a course is an elective, a onetime course or part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in TaskStream. Failure to submit the assessment to TaskStream will result in the course instructor reporting the course grade as Incomplete (IN). Unless the IN grade is changed upon completion of the required TaskStream submission, the IN will convert to an F nine weeks into the following semester.

### **GMU POLICIES AND RESOURCES FOR STUDENTS**

- a. Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/honor-code/>].
- b. Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>].
- c. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- d. The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].
- e. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].
- f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- g. The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].

### **PROFESSIONAL DISPOSITIONS**

Students are expected to exhibit professional behaviors and dispositions at all times.

## **CORE VALUES COMMITMENT**

The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles. <http://cehd.gmu.edu/values/>

**For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website <http://gse.gmu.edu/>.**

## Readings:

- Baker, D., Knipe, H., Collins, J., Leon, J., Cummings, E., Blair, C., & Gamson, D. (2010). One Hundred Years of Elementary School Mathematics in the United States: A Content Analysis and Cognitive Assessment of Textbooks From 1900 to 2000. *Journal of Research in Mathematics Education*, 41(4), 383-423.
- Bishop, A. J., & Forgasz, H. J. (2007). Issues in access and equity in mathematics education. In F. K. Lester (Ed.), *Handbook of research on mathematics teaching and learning* (pp. 1145-1168). Charlotte, NC: Information Age Publishing.
- Charles, R. (2008). Contemporary Curriculum Issues: Do State Content Standards Promote Excellent in Teaching and Learning Mathematics? *Teaching Children Mathematics*, 15(5), 282-287.
- Doerr, H. M., & Zangor, R. (2000). Creating meaning for and with the graphing calculator. *Educational Studies in Mathematics*, 41(2), 143-162.
- Dweck, C. S. (2010). Mind-Sets and Equitable Education. *Principal Leadership*, 26-29.
- Ferrini-Mundy, J., Burrill, G., & Schmidt, W. (2007). Building teacher capacity for implementing curricular coherence: Mathematics teacher professional development tasks. *Journal of Mathematics Teacher Education*, 10(4-6), 311-324.
- Flores, A. (2007). Examining Disparities in Mathematics Education: Achievement Gap or Opportunity Gap? *The High School Journal*, 29-42
- Geist, E. (2010). The Anti-Anxiety Curriculum: Combating Math Anxiety in the Classroom. *Journal of Instructional Psychology*, 37(1), 24-31.
- Herbel-Eisenmann, B. A., Lubienski, S. T., & Id-Deen, L. (2006). Reconsidering the Study of Mathematics Instructional Practices: The Importance of Curricular Context in Understanding Local and Global Teacher Change. *Journal of Mathematics Teacher Education*, 9(4), 313-345.
- Herman, J. L., & Klein, D. C. (1996). Evaluating Equity in Alternative Assessment: An Illustration of Opportunity-to-Learn Issues. *The Journal of Educational Research*, 89(4), 246-256.
- Li, X., Ni, Y., Li, Q., & Tsoi, W. R. (2012). Influences of Curriculum Reform in Primary Mathematics: A Survey of Instructional Practices. *Chinese Education and Society*, 45(4), 22-41. doi: 10.2753/CED1061-1932450402
- Rebora, A. (2013). Math Teachers Break Down Standards for At-Risk Students. *Education Week*.
- Sailors, M., & Shanklin, N. L. (2010). Introduction: Growing Evidence to Support Coaching in Literacy and Mathematics. *The University of Chicago Press*. doi: 10.1086/653467
- Schoenfeld, A. H. (2002). Making Mathematics Work for All Children: Issues of Standards, Testing, and Equity. *Educational Researcher*, 31(1), 13-25.
- Schoenfeld, A. H. (2009). Why Do We Teach? *Kappa Delta Pi Record*, 46(1), 26-29.
- Stein, M. K., Smith, M. S., Henningsen, M. A., & Silver, E. A. (2009). *Implementing standards-based mathematics instruction: A casebook for professional development* (2nd ed.). New York and Reston, VA: Teachers College Press and National Council for Teachers of Mathematics.
- Taylor, M. W. (2013). Replacing the 'teacher-proof' curriculum with the 'curriculum-proof' teacher: Toward more effective interactions with mathematics textbooks. *Journal of Curriculum Studies*, 45(3), 295-321, doi: 10.1080/00220272.2012.710253
- Tomlinson, C. A., Imbeau, M. B. (2010). *Leading and managing a differentiated classroom*. Alexandria, VA: ASCD.
- Van Steenbrugge, H., Valcke, M., & Desoete, A. (2010). Mathematics learning difficulties in primary education: Teachers' professional knowledge and the use of commercially available learning packages. *Educational Studies*, 36(1), 59-71.

### **Additional Readings:**

- Brown, S. A., Pitvorec, K., Ditto, C., & Kelso, C. R. (2009). Reconceiving Fidelity of Implementation: An Investigation of Elementary Whole-Number Lessons. *Journal for Research in Mathematics Education*, 40(4), 363-395.
- Chval, K. B., & Hicks, S. J. (2009). Contemporary Curriculum Issues: Calculators in K-5 Textbooks. *Teaching Children Mathematics*, 15(7), 430-437.
- Clements, D. H. (2007). Curriculum research: Toward a framework for “Research-based Curricula.” *Journal for Research in Mathematics Education*, 38(1), 35-70.
- Gutstein, E. (2003). Teaching and Learning Mathematics for Social Justice in an Urban, Latino School. *Journal for Research in Mathematics Education*, 34(1), 37-73.
- Morse, A. (2009). *Cultivating a math coaching practice*. Thousand Oaks, CA: Corwin Press.
- Remillard, J. T. (2000). Can Curriculum Materials Support Teachers’ Learning? Two Fourth-Grade Teachers’ Use of a New Mathematics Text. *Elementary School Journal*, 100(4), 331-50.

**Schedule (NOTE: The schedule is subject to change. Modifications will be announced in class, by email and posted on the MyMason site for the course.)**

<b>Date</b>	<b>Topic</b>	<b>Readings</b>	<b>Assignment Due</b>
<b>Class 1</b> F2F 8/27 T. 8/29 R.	Standards – An introduction	Curriculum Focal Points Common Core Standards Virginia Standards of Learning	
<b>Class 2</b> 9/3 T. 9/5 R.	Instructional Tasks and Intro to Differentiation	Purple Bk: Ch. 1 Tomlinson: Preface & Ch 1	Photo-narrative project (BB Discussion Bd)
<b>Class 3</b> 9/10 T. 9/12 R.	The State of Standards	Charles (2008) State Standards & Excellence Schoenfeld (2002) Making Math Work	Be prepared to discuss Phase 1 of Curr Analysis Project (grps)
<b>Class 4</b> 9/17 T. 9/19 R.	The State of Textbooks	Baker et al. (2010) Textbooks Taylor (2013) Teacher Proof Curr...	1 <sup>st</sup> Class Constructed Curriculum Task – Wiki
<b>Class 5</b> 9/24 T. 9/26 R.	Challenging Curriculum Diff: Philosophy & Vision	Tomlinson: Ch 2 & 3 Ferrini-Mundy (2007). Building teacher... Herbel-Eisenmann (2006). Reconsidering the Study of Math Instr Pract... Li, Li, Tsoi (2012): Influences of ....	MS Wiki: Math Teaching Tip OR Technology Implementation
<b>Class 6</b> 10/1 T. 10/3 R.	Teacher's Use of Curriculum Diff: Environment Cognitive Demand	Tomlinson: Ch 4 Purple Book, Ch. 2 & 5	MS Wiki: Math Teaching Tip OR Technology Implementation
<b>Class 7</b> 10/8 T. 10/10 R.	Implementation Routines	Tomlinson: Ch 5 & 6 Purple Book, Ch. 6	Be prepared to discuss Phase II of Curr Analysis Project (grps)

<b>Class 8</b> 10/15 T. 10/17 R.	Curriculum Professional Development	Purple Book, Ch. 7 & 11 Schoenfeld (2009) Why do we teach?	MS Wiki: Diverse Learners
<b>Class 9</b> 10/22 T. 10/24 R.	Technology & Curriculum	Doerr & Zangor (2000) Calculators Van Steenbrugge (2010) Mathematics Learning Difficulties... Purple Book, Ch. 8	MS Wiki: Great Articles and/or Books
<b>Class 10</b> 10/29 T. 10/31 R.	Equity	Bishop & Forgasz (2007) Issues in Access... Flores (2007) Examining Disparities Purple Book, Ch. 9	2 <sup>nd</sup> Class Constructed Curriculum Task – Wiki
<b>Class 11</b> 11/5 T. 11/7 R.	Equity	Geist (2010) Anti-Anxiety Curr... Purple Book, Ch. 10	MS Wiki: Upload collection to Taskstream
<b>Class 12</b> 11/12 T. 11/14 R.	Equity	Herman & Klein (1996) Evaluating Equity... Rebora (2013) At-Risk Students...	Class Constructed Curriculum Task & Reflection – Taskstream
<b>Class 13</b> 11/19 T. 11/21 R.	Equity	Dweck (2010) Mind-Sets & Equitable Education Sailors & Shanklin (2010) Growing Evidence to Support Coaching...	Curriculum Analysis Project – Taskstream
WK OF 11/26	Thanksgiving Break		
<b>Class 14</b> F2F 12/3 T. 12/5 R.	Group Presentations for the Class Constructed Curriculum Tasks		Group Presentations for the Class Constructed Curriculum Tasks

## Mathematics Specialist Wiki Collection Rubric

(NCTM NCATE 3a, 4b, 4c, 4d, 4e)

Total Max Points: 24

Submission: <http://pbailey2.pbworks.com/> AND [www.taskstream.com](http://www.taskstream.com)

	<b>Does Not Meet Expectations 0</b>	<b>Below Expectations 1</b>	<b>Meets Expectations 2</b>	<b>Exceeds Expectations 3</b>
<p><u>Math Teaching Tip:</u> A teaching strategy is explained. Relationship to the Process Standards or Mathematical Practices/Standards is explained. <i>NCTM NCATE 3a</i></p>	<p>Strategy is not explained or related to the Process Standards and/or Mathematical Practices/Standards.</p>	<p>Strategy is explained but lacking how to apply the tip in a classroom setting. Relationship to the Process Standards and/or Mathematical Practices/Standards is not elaborated upon.</p>	<p>Strategy is explained but leaves gaps in how to apply the tip in a classroom setting. Relationship to the Process Standards and/or Mathematical Practices/Standards is not fully developed.</p>	<p>Strategy is clearly explained so that one might follow and apply the tip. Relationship is made to Process Standards and/or Mathematical Practices/Standards.</p>
<p><u>Math Teaching Tip:</u> Tip may be used to coach/mentor teachers and is grounded in research. <i>NCTM NCATE 4b</i></p>	<p>The tip is not grounded in research.</p>	<p>The research supporting the tip is weak. The usefulness of the tip to teachers working with students is questionable.</p>	<p>The tip is grounded in research. The usefulness of the tip to teachers working with students is questionable.</p>	<p>The tip is grounded in research. The tip will be useful to teachers when working with students.</p>
<p><u>Great Articles &amp; Books:</u> A written review of the item connects the teaching of mathematics to the development of curriculum thereby applying knowledge of curriculum standards and their relationship to student learning. <i>NCTM NCATE 3a</i></p>	<p>The review <i>does not</i> include:</p> <ul style="list-style-type: none"> <li>• A connection between the article and the goals/objectives of the curriculum,</li> <li>• A connection between the article, student learning, and the standards.</li> </ul>	<p>The review includes:</p> <ul style="list-style-type: none"> <li>• A very weak connection between the article and the goals/objectives of the curriculum,</li> <li>• A very weak connection between the article, student learning, and the standards.</li> </ul>	<p>The review includes:</p> <ul style="list-style-type: none"> <li>• A connection between the article and the goals/objectives of the curriculum but lacks thorough elaboration,</li> <li>• A connection between the article, student learning, and the standards but is not fully elaborated upon.</li> </ul>	<p>The review includes:</p> <ul style="list-style-type: none"> <li>• A strong connection between the article and the goals/objectives of the curriculum,</li> <li>• A strong connection between the article, student learning, and the standards.</li> </ul>

<p><u>Great Articles &amp; Books:</u> The review explains how the article promotes equitable and ethical treatment of and high expectations for all students. <i>NCTM NCATE 4d</i></p>	<p>The review <i>does not</i> include:</p> <ul style="list-style-type: none"> <li>• A thorough explanation of how the article promotes equitable and ethical treatment of and high expectations for all students.</li> <li>• An explanation of how it may be applied to a group of students.</li> </ul>	<p>The review includes:</p> <ul style="list-style-type: none"> <li>• A weak explanation of how the article promotes equitable and ethical treatment of and high expectations for all students.</li> <li>• Lacks how it may be applied to a group of students.</li> </ul>	<p>The review includes:</p> <ul style="list-style-type: none"> <li>• An explanation of how the article promotes equitable and ethical treatment of and high expectations for all students,</li> <li>• Lacks how it may be applied to a group of students.</li> </ul>	<p>The review includes:</p> <ul style="list-style-type: none"> <li>• A thorough explanation of how the article promotes equitable and ethical treatment of and high expectations for all students.</li> <li>• An explanation of how it may be applied to a group of students.</li> </ul>
<p><u>Technology Implementation:</u> A technology tool is described and a handout created for use with teachers about the tool. Reflection on how the tool will enable students to meet the goals/objectives of the curriculum, grounded in research to actively engage students in building new knowledge from prior knowledge and experiences. <i>NCTM NCATE 3a, 4b</i></p>	<p>Three or more of the following is not included in the submission:</p> <ul style="list-style-type: none"> <li>• Description of the tool,</li> <li>• Handout for teacher usage,</li> <li>• Reflection on how the tool will promote goals/obj of the curriculum,</li> <li>• Research backing is given, and</li> <li>• Explains how the tool will engage students in building knowledge.</li> </ul>	<p>Two of the following is not included in the submission or items are not explained:</p> <ul style="list-style-type: none"> <li>• Description of the tool,</li> <li>• Handout for teacher usage,</li> <li>• Reflection on how the tool will promote goals/obj of the curriculum,</li> <li>• Research backing is given, and</li> <li>• Explains how the tool will engage students in building knowledge.</li> </ul>	<p>One of the following is not included in the submission or items are not fully elaborated upon:</p> <ul style="list-style-type: none"> <li>• Description of the tool,</li> <li>• Handout for teacher usage,</li> <li>• Reflection on how the tool will promote goals/obj of the curriculum,</li> <li>• Research backing is given, and</li> <li>• Explains how the tool will engage students in building knowledge.</li> </ul>	<p>Included in the submission:</p> <ul style="list-style-type: none"> <li>• Description of the tool,</li> <li>• Handout for teacher usage,</li> <li>• Reflection on how the tool will promote goals/obj of the curriculum,</li> <li>• Research backing is given, and</li> <li>• Explains how the tool will engage students in building knowledge.</li> </ul>
<p><u>Technology Implementation:</u> The reflection will elaborate on how the tool will demonstrate and encourage equitable and</p>	<p>The reflection <i>does not</i> include:</p> <ul style="list-style-type: none"> <li>• An explanation of how the tool encourages ethical and equitable treatment of and high</li> </ul>	<p>The reflection will include:</p> <ul style="list-style-type: none"> <li>• A weak explanation of how the tool encourages ethical and equitable treatment of and high</li> </ul>	<p>The reflection will include both items of which one explanation is weak:</p> <ul style="list-style-type: none"> <li>• An explanation of how the tool encourages ethical and equitable</li> </ul>	<p>The reflection will include:</p> <ul style="list-style-type: none"> <li>• A thorough explanation of how the tool encourages ethical and equitable treatment of</li> </ul>

<p>ethical treatment of and high expectations for all students. The decision to use the tool will enhance teaching/learning, recognizing both the insights to be gained and possible limitations of such tools. <i>NCTM NCATE 4d, 4e</i></p>	<p>expectations for all students, • An explanation of how the tool will enhance instruction – insights to be gained and limitations of the tool.</p>	<p>expectations for all students, • A weak explanation of how the tool will enhance instruction – insights to be gained and limitations of the tool.</p>	<p>treatment of and high expectations for all students, • An explanation of how the tool will enhance instruction – insights to be gained and limitations of the tool.</p>	<p>and high expectations for all students, • A thorough explanation of how the tool will enhance instruction – insights to be gained and limitations of the tool.</p>
<p><u>Diverse Learners:</u> A strategy is described for use with differentiation and with diverse learners. How do you incorporate it into teaching? How can it be adjusted across grade levels? How does it enable the students to meet the goals/objectives of the curriculum? The strategy is to be grounded in research. <i>NCTM NCATE 3a, 4b</i></p>	<p>The Diverse Learner strategy <i>does not</i> include: • A detailed description so that a teacher might be able to implement it in the classroom, • Adjustments across grade levels is described, • The relationship to the goals/obj. of the curriculum is given, • Research foundation is given.</p>	<p>The Diverse Learner strategy includes only two of the following and/or the items are <i>very</i> weak: • A detailed description so that a teacher might be able to implement it in the classroom, • Adjustments across grade levels is described, • The relationship to the goals/obj. of the curriculum is given, • Research foundation is given.</p>	<p>The Diverse Learner strategy includes all but one of the following or are not thoroughly explained: • A detailed description so that a teacher might be able to implement it in the classroom, • Adjustments across grade levels is described, • The relationship to the goals/obj. of the curriculum is given, • Research foundation is given.</p>	<p>The Diverse Learner strategy includes: • A detailed description so that a teacher might be able to implement it in the classroom, • Adjustments across grade levels is thoroughly described, • The relationship to the goals/obj. of the curriculum is given, • Research foundation is given.</p>
<p><u>Diverse Learners:</u> The explanation of the strategy should include: Knowledge of individual differences and the cultural and language diversity that exists within</p>	<p>The strategy reflection <i>does not</i> include an explanation of how the strategy: • Addresses individual differences, cultural diversity, and/or</p>	<p>The strategy reflection includes weak explanations or missing items of how the strategy: • Addresses individual differences, cultural diversity, and/or</p>	<p>The strategy reflection includes weak explanation(s) of how the strategy: • Addresses individual differences, cultural diversity, and/or</p>	<p>The strategy reflection includes a thorough explanation of how the strategy: • Addresses individual differences, cultural diversity, and/or</p>

<p>classrooms; How the strategy will assist teachers in embracing culturally relevant perspectives as a means to motivate and engage students. How the strategy will demonstrate and encourage equitable and ethical treatment of and high expectations for all students. <i>NCTM NCATE 4c, 4d</i></p>	<p>language diversity,  <ul style="list-style-type: none"> <li>• Assists teachers to embrace diversity and motivate/engage students,</li> <li>• Encourages equitable and ethical treatment of and high expectations for all students.</li> </ul> </p>	<p>language diversity,  <ul style="list-style-type: none"> <li>• Assists teachers to embrace diversity and motivate/engage students,</li> <li>• Encourages equitable and ethical treatment of and high expectations for all students.</li> </ul> </p>	<p>language diversity,  <ul style="list-style-type: none"> <li>• Assists teachers to embrace diversity and motivate/engage students,</li> <li>• Encourages equitable and ethical treatment of and high expectations for all students.</li> </ul> </p>	<p>language diversity,  <ul style="list-style-type: none"> <li>• Assists teachers to embrace diversity and motivate/engage students,</li> <li>• Encourages equitable and ethical treatment of and high expectations for all students.</li> </ul> </p>
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# RUBRIC - CURRICULUM ANALYSIS PROJECT

(NCTM NCATE 6d)

Submission: [www.tasksteam.com](http://www.tasksteam.com)

Total Max Points: 27

	<b>Does Not Meet Expectations 0</b>	<b>Below Expectations 1</b>	<b>Meets Expectations 2</b>	<b>Exceeds Expectations 3</b>
<p><b><u>Phase 1 Ideal Curriculum:</u></b> The following is provided for <u>Textbook(s) and Supporting Materials AND All Other Materials:</u></p> <ul style="list-style-type: none"> <li>• Title of text</li> <li>• Publisher,</li> <li>• Publication date,</li> <li>• Grade levels</li> <li>• Overarching philosophy or theory in terms of teaching and learning</li> </ul>	<p>Textbook(s) and its supporting materials, as well as all other materials, are NOT fully described. The philosophy or theory in terms of teaching and learning is missing.</p>	<p>Textbook(s) and its supporting materials, as well as all other materials, are described but missing some of the required elements. The philosophy or theory in terms of teaching and learning are described but lacking clarity.</p>	<p>Textbook(s) and its supporting materials, as well as all other materials, are described. The philosophy or theory in terms of teaching and learning are described but lacking clarity.</p>	<p>Textbook(s) and its supporting materials, as well as all other materials, are described. The philosophy or theory in terms of teaching and learning are described fully.</p>
<p><b><u>Phase 1 Ideal Curriculum: Alignment &amp; Sequence of Topics</u></b> Reflection describes if</p> <ul style="list-style-type: none"> <li>• Materials are or are not aligned with standards,</li> <li>• Location of the <b>2 topics</b> in the materials make sense with the appropriate prerequisites and a natural connection to the preceding and</li> </ul>	<p>The reflection <i>does NOT</i> include a description of:</p> <ul style="list-style-type: none"> <li>• Whether the materials aligned with the standards,</li> <li>• The location of 2 topics and if they made logical sense with regard to the prerequisites and connections to preceding topics,</li> </ul>	<p>The reflection includes a description of the following but is based on <i>one topic</i>:</p> <ul style="list-style-type: none"> <li>• Whether the materials aligned with the standards,</li> <li>• The location of 1 topic and if it made logical sense with regard to the prerequisites and connections to preceding</li> </ul>	<p>The reflection includes a description of the following which lacks clarity and completeness:</p> <ul style="list-style-type: none"> <li>• Whether the materials aligned with the standards,</li> <li>• The location of 2 topics and if they made logical sense with regard to the prerequisites and connections to preceding</li> </ul>	<p>The reflection includes a comprehensive description of:</p> <ul style="list-style-type: none"> <li>• Whether the materials aligned with the standards,</li> <li>• The location of 2 topics and if they made logical sense with regard to the prerequisites and connections to preceding topics,</li> </ul>

<p>following topics, and</p> <ul style="list-style-type: none"> <li>Materials are easy to understand and follow for students and the activities make sense.</li> </ul> <p><i>NCTM NCATE 6d</i></p>	<ul style="list-style-type: none"> <li>Whether the materials were easy to follow and understand for students, and</li> <li>If the activities connected to the topics made sense.</li> </ul>	<p>topics,</p> <ul style="list-style-type: none"> <li>Whether the materials were easy to follow and understand for students, and</li> <li>If the activities connected to the topic made sense.</li> </ul>	<p>topics,</p> <ul style="list-style-type: none"> <li>Whether the materials were easy to follow and understand for students, and</li> <li>If the activities connected to the topics made sense.</li> </ul>	<ul style="list-style-type: none"> <li>Whether the materials were easy to follow and understand for students, and</li> <li>If the activities connected to the topics made sense.</li> </ul>
<p><b><u>Phase 1 Ideal Curriculum: Alignment &amp; Sequence of Topics</u></b> Reflection describes if</p> <ul style="list-style-type: none"> <li>Additional topics are beyond the standards covered by the materials, and</li> <li>There any components of the topic that are missing from the materials.</li> </ul> <p>The reflection relates the advantages and disadvantages of the materials for the teacher.</p> <p><i>NCTM NCATE 6d</i></p>	<p>The reflection of the ideal curriculum <i>does NOT</i> discuss:</p> <ul style="list-style-type: none"> <li>Additional topics that go beyond the standards that are covered within the materials, and</li> <li>If there are any components of the topic that are missing from the materials.</li> </ul> <p>The reflection <i>does not</i> describe the advantages and disadvantages of the materials for the teacher.</p>	<p>The reflection of the ideal curriculum discusses:</p> <ul style="list-style-type: none"> <li>Additional topics that go beyond the standards that are covered within the materials, <i>OR</i></li> <li>If there are any components of the topic that are missing from the materials.</li> </ul> <p>The reflection lacks a discussion of the advantages and disadvantages of the materials for the teacher.</p>	<p>The reflection of the ideal curriculum discusses:</p> <ul style="list-style-type: none"> <li>Additional topics that go beyond the standards that are covered within the materials, <i>OR</i></li> <li>If there are any components of the topic that are missing from the materials.</li> </ul> <p>The reflection describes the advantages and disadvantages of the materials for the teacher while lacking clarity or thoroughness.</p>	<p>The reflection of the ideal curriculum discusses:</p> <ul style="list-style-type: none"> <li>Additional topics that go beyond the standards that are covered within the materials, and</li> <li>If there are any components of the topic that are missing from the materials.</li> </ul> <p>The reflection fully describes the advantages and disadvantages of the materials for the teacher.</p>
<p><b><u>Phase 2 Implemented Curriculum:</u></b> A synopsis of two teacher interviews includes but is not limited to a discussion about whether they liked the textbooks and supporting materials as</p>	<p>The synopsis of the two teacher interviews <i>does NOT</i> relate whether they liked the resources.</p>	<p>The synopsis of one teacher interview relates whether he/she liked the resources and why. The discussion includes materials given in Phase 1.</p>	<p>The synopsis of the two teacher interviews relates whether they liked the resources and why. The discussion <i>does not</i> include all materials given in Phase 1.</p>	<p>The synopsis of the two teacher interviews relates whether they liked the resources and why. The discussion includes all materials given in Phase 1.</p>

well as all other materials listed (with their reasoning). <i>NCTM NCATE 6d</i>				
<b><u>Phase 2 Implemented Curriculum:</u></b> A synopsis of two teacher interviews includes but is not limited to a discussion about how they intermingle all materials available to use in the classroom and, if more than one textbook series is used, to explain how are they used together. <i>NCTM NCATE 6d</i>	The synopsis of the two teacher interviews regarding how all resources are implemented is missing.	The synopsis of one teacher interview relates in how all resources are implemented (intermingled) but may lack clarity. If more than one textbook series is used, the discussion explains how they are blended together but may lack clarity.	The synopsis of the two teacher interviews relates how all resources are implemented (intermingled) but lacks clarity. If more than one textbook series is used, the discussion explains how they are blended together but lacks clarity.	The synopsis of the two teacher interviews relates in detail how all resources are implemented (intermingled). If more than one textbook series is used, the discussion explains how they are blended together.
<b><u>Phase 2 Implemented Curriculum:</u></b> A synopsis of two teacher interviews includes but is not limited to a discussion about what they would do to improve the materials and when and how they supplement the available materials with other math activities. <i>NCTM NCATE 6d</i>	The synopsis of the two teacher interviews <i>does NOT</i> include: <ul style="list-style-type: none"> <li>• How the resources may be improved, and</li> <li>• When and how other math materials are implemented with the existing items.</li> </ul>	The synopsis of one teacher interview includes: <ul style="list-style-type: none"> <li>• How the resources may be improved, <i>OR</i></li> <li>• When and how other math materials are implemented with the existing items.</li> </ul> The response may lack clarity.	The synopsis of the two teacher interviews includes: <ul style="list-style-type: none"> <li>• How the resources may be improved, <i>OR</i></li> <li>• When and how other math materials are implemented with the existing items.</li> </ul>	The synopsis of the two teacher interviews includes: <ul style="list-style-type: none"> <li>• How the resources may be improved, and</li> <li>• When and how other math materials are implemented with the existing items.</li> </ul>
<b><u>Phase 3 Combined Analysis:</u></b> Use results from phases I and II to discuss how the	How the ideal curricula is implemented by the teachers is <i>NOT</i> discussed.	How the ideal curricula is implemented by the teachers is discussed but not related to information	How the ideal curricula is implemented by the teachers is discussed using information gained during	How the ideal curricula is implemented by the teachers is discussed using information gained during

<p>ideal curricula is implemented by the teachers. <i>NCTM NCATE 6d</i></p>		<p>gained during Phase 1 and 2.</p>	<p>Phase 1 and 2 but lacks clarity.</p>	<p>Phase 1 and 2.</p>
<p><b><u>Phase 3 Combined Analysis:</u></b> Use results from phases I and II to discuss if the implemented curricula meets the expectations of the ideal curriculum. <i>NCTM NCATE 6d</i></p>	<p>The implemented curricula meeting the expectations of the ideal curricula is <i>NOT</i> discussed in the paper.</p>	<p>The implemented curricula meeting the expectations of the ideal curricula is discussed but not related to information gained during Phase 1 and 2.</p>	<p>The implemented curricula meeting the expectations of the ideal curricula is discussed using information gained during Phase 1 and 2 but lacks clarity.</p>	<p>The implemented curricula meeting the expectations of the ideal curricula is discussed using information gained during Phase 1 and 2.</p>
<p><b><u>Phase 3 Combined Analysis:</u></b> Use results from phases I and II to discuss how you would plan to proceed in working with the teachers based on their responses, as if you were a mathematics specialist, coach, or lead mathematics teacher. Describe suggestions you would give to help the teachers with their teaching and what resources would be helpful and supportive in these efforts. <i>NCTM NCATE 6d</i></p>	<p>From the lens of a mathematics specialist, coach, or lead teacher, a discussion is <i>NOT</i> included for the following topics:</p> <ul style="list-style-type: none"> <li>• How you plan to proceed in working with the teachers based on their responses,</li> <li>• A description of suggestions you would give to help the teachers with their teaching, and</li> <li>• What resources would be helpful and supportive in these efforts.</li> </ul>	<p>From the lens of a mathematics specialist, coach, or lead teacher, a discussion summarizes one of the following:</p> <ul style="list-style-type: none"> <li>• How you plan to proceed in working with the teachers based on their responses,</li> <li>• A description of suggestions you would give to help the teachers with their teaching, and</li> <li>• What resources would be helpful and supportive in these efforts.</li> </ul> <p>More than one item may be included but lack clarity.</p>	<p>From the lens of a mathematics specialist, coach, or lead teacher, a discussion summarizes two of the following:</p> <ul style="list-style-type: none"> <li>• How you plan to proceed in working with the teachers based on their responses,</li> <li>• A description of suggestions you would give to help the teachers with their teaching, and</li> <li>• What resources would be helpful and supportive in these efforts.</li> </ul> <p>Items may all be included but lack clarity.</p>	<p>From the lens of a mathematics specialist, coach, or lead teacher, a discussion summarizes:</p> <ul style="list-style-type: none"> <li>• How you plan to proceed in working with the teachers based on their responses,</li> <li>• A description of suggestions you would give to help the teachers with their teaching, and</li> <li>• What resources would be helpful and supportive in these efforts.</li> </ul>

## RUBRIC - CLASS CONSTRUCTED CURRICULUM TASKS

(NCTM NCATE 3a, 4b, 4c, 4d, 4e, 6d)

Total Max Points: 33

Submission: <http://edci645curriculumtasks.pbworks.com/> AND [www.taskstream.com](http://www.taskstream.com)

	<b>Does Not Meet Expectations 0</b>	<b>Below Expectations 1</b>	<b>Meets Expectations 2</b>	<b>Exceeds Expectations 3</b>
Goals/Objectives for the ideal curriculum <i>NCTM NCATE 3a</i>	The following are <i>NOT</i> stated, explained, and connections given: <ul style="list-style-type: none"> <li>• Goals (NCTM Process Standards), and</li> <li>• Objectives (VSOL and Mathematical Practices)</li> </ul>	The following are just stated: <ul style="list-style-type: none"> <li>• Goals (NCTM Process Standards), and</li> <li>• Objectives (VSOL and Mathematical Practices)</li> </ul>	The following are stated and explained: <ul style="list-style-type: none"> <li>• Goals (NCTM Process Standards), and</li> <li>• Objectives (VSOL and Mathematical Practices)</li> </ul>	The following are stated, thoroughly explained, and connections given: <ul style="list-style-type: none"> <li>• Goals (NCTM Process Standards), and</li> <li>• Objectives (VSOL and Mathematical Practices)</li> </ul>
<b><u>Task #1 Identifying Info:</u></b> a. Grade level b. Major concept c. Objectives/goals d. Prerequisite knowledge e. Technology (if enhances learning) <i>NCTM NCATE 3a, 4e</i>	The following are <i>NOT</i> included: a.b. Grade level and major concept of task are stated. e. Technology stated. The following are missing: c. Objectives & goals d. Prerequisite knowledge	The following are included: a.b. Grade level and major concept of task are stated. e. Technology stated. The following are included but very weak or one is missing: c. Objectives & goals are stated. d. Prerequisite knowledge is complete and extensive.	The following are included: a.b. Grade level and major concept of task are stated. e. Technology stated with clear explanations regarding how it was to be used. The following are included but not complete or inclusive: c. Objectives & goals are stated. d. Prerequisite knowledge is complete and extensive.	All of the following are included: a.b. Grade level and major concept of task are stated. c. Objectives & goals are stated. d. Prerequisite knowledge is complete and extensive. e. Technology stated with clear explanations regarding how it was to be used.

<p><b><u>Task #1 Plans/Materials:</u></b>  a. Teacher Notes  b. Student Handout  <i>NCTM NCATE 3a, 4b, 4c, 4d, 4e</i></p>	<p>Teacher notes and student handout are <i>NOT</i> provided.</p>	<p>Teacher notes are inadequate for teachers to follow and apply with students.  Student handout is not clear and/or easy to follow. Handout has many errors.</p>	<p>Teacher notes are provided but gaps exist making it unclear for teachers to follow and apply with students.  Student handout is clear, easy to follow, and few errors.</p>	<p>Teacher notes are extensive and sufficient for teachers to follow and apply with students.  Student handout is clear, easy to follow, and free of errors.</p>
<p><b><u>Task #1 Differentiation:</u></b>  a. Differentiation/diversity  b. Modifications for other grade levels within grade band  <i>NCTM NCATE 4c, 4d</i></p>	<p>Teacher notes <i>do NOT</i> include:  How the task addresses differentiation and diversity,  Provides modifications for other grade levels in your grade band.</p>	<p>Teacher notes:  Explains how the task addresses differentiation and diversity with major gaps that aid in teachers being able to follow.  Provides modifications for few grade levels in your grade band.</p>	<p>Teacher notes:  Explains how the task addresses differentiation and diversity but lacks clarity.  Provides modifications for most of the grade levels in your grade band.</p>	<p>Teacher notes:  Thoroughly explains how the task addresses differentiation and diversity  Provides modifications for other grade levels in your grade band.</p>
<p><b><u>Task #2 Identifying Info:</u></b>  a. Grade level  b. Major concept  c. Objectives/goals  d. Prerequisite knowledge  e. Technology (if enhances learning)  <i>NCTM NCATE 3a, 4e</i></p>	<p>The following are NOT included:  a.b. Grade level and major concept of task are stated.  e. Technology stated.  The following are missing:  c. Objectives &amp; goals  d. Prerequisite knowledge</p>	<p>The following are included:  a.b. Grade level and major concept of task are stated.  e. Technology stated.  The following are included but very weak or one is missing:  c. Objectives &amp; goals are stated.  d. Prerequisite knowledge is complete and extensive.</p>	<p>The following are included:  a.b. Grade level and major concept of task are stated.  e. Technology stated with clear explanations regarding how it was to be used.  The following are included but not complete or inclusive:  c. Objectives &amp; goals are stated.  d. Prerequisite knowledge</p>	<p>All of the following are included:  a.b. Grade level and major concept of task are stated.  c. Objectives &amp; goals are stated.  d. Prerequisite knowledge is complete and extensive.  e. Technology stated with clear explanations regarding how it was to be used.</p>

			is complete and extensive.	
<p><b>Task #2 Plans/Materials:</b></p> <p>a. Teacher Notes b. Student Handout <i>NCTM NCATE 3a, 4b, 4c, 4d, 4e</i></p>	Teacher notes and student handout are NOT provided.	Teacher notes are inadequate for teachers to follow and apply with students. Student handout is not clear and/or easy to follow. Handout has many errors.	Teacher notes are provided but gaps exist making it unclear for teachers to follow and apply with students. Student handout is clear, easy to follow, and few errors.	Teacher notes are extensive and sufficient for teachers to follow and apply with students. Student handout is clear, easy to follow, and free of errors.
<p><b>Task #2 Differentiation:</b></p> <p>a. Differentiation/diversity b. Modifications for other grade levels within grade band <i>NCTM NCATE 4c, 4d</i></p>	Teacher notes <i>do NOT</i> include: How the task addresses differentiation and diversity, Provides modifications for other grade levels in your grade band.	Teacher notes: Explains how the task addresses differentiation and diversity with major gaps that aid in teachers being able to follow. Provides modifications for few grade levels in your grade band.	Teacher notes: Explains how the task addresses differentiation and diversity but lacks clarity. Provides modifications for most of the grade levels in your grade band.	Teacher notes: Thoroughly explains how the task addresses differentiation and diversity Provides modifications for other grade levels in your grade band.
<p><b>Reflection of lesson</b> taught includes:</p> <p>a. What went well with the task b. What did not go well with the task <i>NCTM NCATE 6d</i></p>	Reflection of the task taught <i>does NOT</i> include: a. What went well with the task, and b. What did not go well with the task.	Reflection of the task taught includes: a. What went well with the task, and b. What did not go well with the task. Statements for the above are <i>not</i> justified with events, quotes, or actions of students.	Reflection of the task taught includes: a. What went well with the task, and b. What did not go well with the task. Statements for the above are weakly justified with events, quotes, or actions of students.	Reflection of the task taught includes: a. What went well with the task, and b. What did not go well with the task. Statements for the above are justified with events, quotes, or actions of students.
<p><b>Reflection of lesson</b> taught includes:</p> <p>a. Strategies intended for student to use</p>	Reflection of the task taught <i>did NOT</i> include: A list of all possible strategies that the students	Reflection of the task taught includes: An incomplete list of possible strategies that the	Reflection of the task taught includes: A list of all possible strategies that the students	Reflection of the task taught includes: A list of all possible strategies that the students

<p>b. Strategies the students <i>did</i> use in addition to what was expected <i>NCTM NCATE 3a, 6d</i></p>	<p>might use. A list of strategies that the students <i>did</i> use.</p>	<p>students might use. A list of strategies that the students <i>did</i> use was not given.</p>	<p>might use. A list of strategies that the students <i>did</i> use was not given.</p>	<p>might use. A list of strategies that the students <i>did</i> use.</p>
<p><b>Reflection of lesson</b> taught includes:  <ul style="list-style-type: none"> <li>Two student work samples – annotations addressing their work and how it related to the task expectations.</li> </ul> <i>NCTM NCATE 3a, 6d</i></p>	<p>Reflection of the task taught did NOT include work from 2 students.</p>	<p>Reflection of the task taught includes:  Work from 2 students.  Work is <i>not</i> annotated with comments about their progress, actions, and how it related to the task expectations.</p>	<p>Reflection of the task taught includes:  Work from 2 students.  Work is annotated with comments about their progress and actions however comments are not insightful.  The work is not related to the task expectations.</p>	<p>Reflection of the task taught includes:  Work from 2 students.  Work is annotated with comments about their progress, actions, and how it related to the task expectations.</p>
<p><b>Presentation:</b>  Each group will present during the last class an overview of their collection of tasks, goals/objectives and overview of a task(s), and how it may be modified for usage in vertical alignment.  <i>NCTM NCATE 6d</i></p>	<p>Presentation is NOT given.</p>	<p>Some team members take an active role.  Presentation includes:  Overview of the collection of tasks, and  Goals and objectives of the tasks.  Specifics for the one task are not given.</p>	<p>All team members take an active role.  Presentation includes:  Overview of the collection of tasks, and  Goals and objectives of the tasks.  For one task:  Overview of a task is unclear, and  Modifications for usage in vertical alignment are unclear or does not include all grades in grade band.</p>	<p>All team members take an active role.  Presentation includes:  Overview of the collection of tasks, and  Goals and objectives of the tasks.  For one task:  Team shares overview of a task, and  How it may be modified for usage in vertical alignment for all grades in grade band.</p>