Spring 2008 Course Syllabus EED 434 (Mathematics in the Elementary and Middle School)



A required course for EC-4 Generalist, EC-8 math, 4-8 Math Certification

Instructor: Dr. Sylvia R. Taube

Teacher Education Center 237

P.O. Box 2119/SHSU

[Office at Sam] (936) 294-3751

Email: taube@shsu.edu

Office Hours: T-Th 8:00 am- 9:00 am, 1:00 pm-3:00 pm, -TUC Room 312

M-W 1:00 pm - 3:00 pm - TEC 237;

Wednesday - online only 8:00 pm - 10:00 pmBy appointment - when field experience begins

Meeting Times: Section 06: Tuesday/Thursday 9:00 am -11:00 am

Section 07: Tuesday/Thursday 11:00 pm – 1:00 pm

Place/Room: The University Center, The Woodlands, room 312

References:

Course Description:

This is a teaching methodology course designed to help teacher candidates gain competencies in planning, implementing, assessing, and modifying mathematics instruction that meets the needs of diverse learners. This course also addresses the national mathematics standards, the Texas mathematics curriculum (EC-4), and student assessment program (TAKS).

Field experience is a mandatory component of the method courses. It takes place in the established schools. During field experience days you will have a variety of assignments to complete that are directly related to this methods course. You will make connections between pedagogy, practice, and mathematics as a subject.

Field experience provides a unique opportunity for teacher candidates to:

- begin the transition from student to teacher,
- familiarize themselves with the culture of the mathematics classroom in elementary schools,
- observe and put into practice the concepts and skills learned in the course,
- better understand the learners, the processes involved in developing conceptual understanding in students, and multiple approaches to facilitate learning, and,
- gain an understanding of the teacher roles and responsibilities that are part of a daily teaching routine.

Standard Matrix

Objectives/Learning Outcomes The teacher candidate:	Activities (* indicates field-based activity)	Performance Assessment	Standards: • State Standards • Specialty Organization Standards
1. Applies knowledge about how children learn mathematics to develop	*Design and teach a mathematics lesson in the field using manipulatives.	Rubric	PPR Domain 01- Designing instruction and assessment to promote student learning
age-appropriate lessons.	*Small group re-teach	Reflection on how the students performed during the re-teach session.	Standard 1 1.2k-1.4k 1.1s-1.5s 1.7s
	Resource file—a collection of 20 quality lesson plans to teach the 5 content standards and 5 process standards.	Rubric attached	Standard 4 NCTM Standard 8 Standard 14
	View, analyze math teaching and assessment videos (Best Practice)	Class discussion	
2. Plans and demonstrates appropriate use of different strategies to teach and assess diverse students.	*Differentiated instruction- follow up one student with special need and observe accommodations implemented by the mentor teacher.	Guideline is attached	PPR Domain 03 – Implementing effective, responsive instruction and assessment Standard 1
	*Interaction synopsis – a written reflection of the impact of a re-teach session to a group of students.	Reflection	Competency 002 – The teacher understands student diversity and knows how to plan learning experiences among students and that
	Math Resource File - a collection of 20 quality lesson plans to teach the 5 content standards.	Rubric attached	promote all students' learning. 1.11s; 1.21s - 1.22s
	One Week Unit – planning a 5-day unit along with the assessment plan (pre, post, and formative assessment)	Rubric attached	NAEYC Standard 1 Standard 2 NCTM Standard 7 Standard 8 Standard 14

3. Uses a variety of	*Small group re-teach –	Reflections, lesson	PPR Domain 03 -
resources to design	revise original lesson to	plan, Mentor	Implementing effective,
lessons aligned with the	meet the needs of specific	and/or professor	responsive instruction and
national, state standards (TEKS), and assessment	students. Then re-teach	evaluation	assessment
(TAKS).		Rubrics	Standard 1
	Resource file- a collection of 15 quality lesson plans to teach the 5 content standards. One Week Unit- planning a 5-day unit along with the assessment plan (pre, post, and formative assessment)	Rubric	Competency 003 – The teacher understands procedures for effective and coherent instruction and assessment based on appropriate learning goals objectives. 1.7k, 1.19k 1.16s-1.18s 1.19s-1.23s 1.6s -1.11s NAEYC Standard 4: b, c, and d Standard 5
			NCTM Standard 14
4. Make connections	*Lesson taught in field	Rubric	PPR Domain 03 -
within mathematics and	20 88011 taag.11 111 11014	Reflection	Implementing effective,
other disciplines to		Refrection	responsive instruction and
motivate students in	Review of math-literature	Class Discussion,	assessment
learning meaningful	books- Analyze trade books	presentation	assessment
mathematics.	with strong math	presentation	Standard I, II
mathematics.	connection and plan for	Rubrics	Standard 1, 11
	integrating in math lessons.	Rubiics	Competency 003 – The
	integrating in math lessons.		teacher understands
			procedures for effective and
	Resource file - a collection		coherent instruction and
	of 15 quality lesson plans to		assessment based on
	teach the 5 content		appropriate learning goals
	standards.		objectives.
			1.8k-1.11k 1.10s-1.11s 1.23k, 1.23s 3.8s – 3.14s NAEYC Standard 4: b, c, and d NCTM Standard 4

5. Selects and uses	Lesson plan for field experience	Common scoring	PPR Domain 03 -
appropriate	Lesson plan for field experience	rubric for methods	Implementing
manipulatives (including		courses.	effective, responsive
web-based) and			instruction and
technology (Calculator & Computer) to enhance	Review web-based mathematical sites - locate and describe web	Rubric for Unit Plan attached – using	assessment
students' mathematics understanding.	resources to help teachers make math lessons interesting and	appropriate web sites for math	Standard I, II
understanding.	main lessons interesting and meaningful.	resources will be described in the unit plan.	Competency 004 – The teacher understands learning processes and factors that impact student learning and demonstrates this knowledge by planning effective, engaging instruction and appropriate assessments. 1.10k 1.19k-1.24k 1.6s-1.11s 2.20s NAEYC Standard 1 Standard 3 Standard 4: b, c, and d NCTM Standard 4 Standard 5 Standard 6
6. Plans learning and assessment that fosters	*Lesson Plan that utilizes higher- order thinking skills	Common rubric	PPR Domain 03 - Implementing
higher-order thinking skills, critical thinking.	*One week unit	Rubric attached	effective, responsive instruction and
	Watch and reflect on tape: Ms. Toliver in conjunction with	Class discussion and reflection on:	assessment Standard I, III
	PDAS Form A	• best practices,	
		asking higher-	Competency 007 –
		order questions,	The teacher
		high expectationDiversity	understands and applies principles
			and strategies for
			communicating
			effectively in varied
			teaching and
			learning contexts.

			1.12k - 1.18k 1.20k 1.11s - 1.22s 3.4s -3.6s NAEYC Standard 1 Standard 3 NCTM Standard 3 Standard 4 Standard 5 Standard 8
7. Utilizes a variety of assessment methods while integrating assessment throughout the instructional delivery.	*Interaction synopsis *One week unit Texas Assessment of Academic Skills (TAKS) in-class analysis and planning for review strategies	Rubric Rubric Written analysis and oral presentation	PPR Domain 03 - Implementing effective, responsive instruction and assessment Standard I Competency 003 - The teacher understands procedures for effective and coherent instruction and assessment based on appropriate learning goals objectives. 1.24k-1.30k 1.24s-1.29s NAEYC Standard 3 NCTM Standard 5 Standard 8 Standard 14

8. Demonstrates, models	*Collaborative work; Working in		PPR Domain 04 –
professionalism and	team – students will be assessed	Observation,	Fulfilling
fulfills responsibilities.	based on their cooperation as a	mentor's appraisal	professional roles

*Interaction with instructors, mentors, peers; planning with partner and mentors; *Disposition in class and in the field. Read professional journals (NCTM) and reflect on issues related to mathematics education.	checklist; peer evaluation Dispositions checklist; field experience participation; self- appraisal checklist A short write-up of major ideas and reflections	and responsibilities. Standard IV Competency 12 – The teacher enhances professional knowledge and skills by effectively interacting with other members of the educational community and participating in varied types of
(NCTM) and reflect on issues	A short write-up of	by effectively interacting with
related to mathematics education.		community and
		3.1s – 3.3s 4.5s-4.15s 4.9k-4.12k
		NAEYC Standard 5 NCTM Standard 2 Standard 7

^{*}All directions, details and assessment tools will be provided to you as the assignments are given in class.

Web Site for TX state teaching standards: http://www.sbec.state.tx.us
Web Site for NCATE/NCTM Program Standards for initial preparation of mathematics teachers (Elem. Math Specialist) -- http://www.nctm.org/ncate.aspx

http://www.ncate.org/ProgramStandards/NCTM/NCTMELEMStandards.pdf

Course Format:

The course will be taught by modeling the most current and effective practices in teaching mathematics that foster and support candidates' active participation and reflections. Cooperative learning, group projects, use of literature, integration of subjects, and integration of current instructional technology will be emphasized. The candidate will be engaged in handson activities associated with planning, teaching, and assessing mathematics learning *for all learners* following the TEKS. Fifty percent of the course requirements will be completed in the real classroom during field experience.

Three-Part Course Content:

A. Foundations of teaching mathematics with emphasis on the national and state mathematics

curriculum and teaching standards; Research on student thinking; international assessment

- B. Planning, teaching, assessing, and modifying instruction for diverse learners
- C. Analysis of mathematics TEKS and state assessment system (TAKS).

In order to be responsive to the needs of the candidates at any given time, the instructor reserves the right to modify the schedule as deemed appropriate.

EVALUATION PROCEDURES AND GRADING POLICIES

The difference between a student who succeeds and a student who excels is in the preparation.
-- Anonymous

The evaluation system outlined below is an attempt to provide candidates with a significant role in determining their final grade for EED 434. This system is based on my belief that the most important variable involved in determining the candidate's final grade should be the quantity of high-quality work completed. My requirement is that all assignments submitted must demonstrate the quality of work expected of prospective elementary school teachers; you, in turn, have options regarding the amount of work you submit meeting these requirements.

Understanding that life occasionally places obstacles in the foreseen path, it is expected that there may be times that an assignment may not be ready at the established due date. Therefore, late assignments will be accepted. However, it is important to realize that as a student it is your responsibility to provide the highest possible quality work in a timely manner. If an assignment must be turned in late, 5 points **per day** will be deducted from the final grade of that assignment.

Course Assessments: [All major assignments can be used as artifacts for your PPR portfolio.]

In-class (290 points)

1. One-week Unit (100 points)

Purpose: The teacher candidate will demonstrate competencies under PPR by performing the following tasks:

- a) Design age-appropriate lessons for 5 consecutive days using specific TEKS;
- b) Plan hands-on activities using appropriate strategy and technology;
- c) Integrate assessments, use questioning, and teach mathematics vocabulary; and
- d) Reflect on the process of designing meaningful instructional activities in mathematics.

This assignment will also help you develop your own Teacher Work Sample (TWS) during the student teaching semester.

Directions: This assignment will be completed in pairs and requires a strong collaboration between the team members.

The following guidelines should be followed to complete the assignment:

- a) Select a grade level
- b) Analyze the TEKS (Choose 1 2 contents strands).

- c) Choose 1 to 2 student expectations (TEKS) and develop a short activity that will help students learn the intended objective.
- d) Describe the activity that students will be doing and materials/resources needed.
- e) Find an appropriate web site for extension activity or to differentiate instruction. Briefly describe the website.
- f) Plan for assessment throughout the unit (pre, formative, post). Type this on a separate table.
- g) Summarize your 1-week unit on a table (see separate attachment for examples).

Questions, issues to address in team reflection (NOTE: *only one reflection per team*) include the following:

- 1. Give a short description of the unit and indicate which lessons you were able to teach during field experience.
- 2. How did this assignment help you understand Standards I and III of the PPR?
- 3. Identify 4-5 competencies (at the application level) you have adequately demonstrated. Describe evidence for each.
- 4. How did this assignment provide opportunities for collaborative work?
- 5. To what extent have you learned the Texas mathematics curriculum (TEKS)? How helpful are they in designing your lessons?
- 6. What questions and challenges did you face as you completed this assignment?

2. Resource file (100 points)

Purpose of this assignment: The teacher candidate will demonstrate the following PPR competencies:

Domain I: Designing instruction and assessment to promote student learning

- 03. The teacher understands procedures for effective and coherent instruction and assessment based on appropriate learning goals objectives.
- 04. The teacher understands learning processes and factors that impact student learning and demonstrates this knowledge by planning effective, engaging instruction and appropriate assessments.

Domain III: Implementing Effective, Responsive Instruction and Assessment

- 08. The teacher provides appropriate instruction that actively engages students in the learning process.
- 09. The teacher incorporates the effective use of technology to plan, organize, deliver, and evaluate instruction for all students.

Guidelines for the Math Resource File

During our class periods we will discuss the five content standards as well as the process standards needed to teach math in the twenty-first century. The five content standards are: Number and Operations, Algebra, Geometry, Measurement, and Data Analysis and Probability. This assignment is designed to assist you in initiating a valuable mathematical resource for your own classroom and/or during your student teaching semester.

You and a partner will research and collect 4 **high quality** lesson plans **in each** of the five content areas. Your sources can be the internet, books, journals, or mentor's lesson taught in class. Each lesson will contain a specific activity aimed at a specific grade level, to teach the specific content. The activity can be on the grade level of your choice. Lesson plans are to be in the resource file format provided in class; they must have all required sections of the lesson and a link or citation of where the lesson was found must be included at the bottom of the page. Lessons can be developed to meet the established criteria. For each content strand, at least three *different* sources must be utilized. These lesson plans can be arranged in a format that is desirable for you (i.e., 3 ring binder, portable file box, accordion folder, etc.). The resource file will be divided into each content strand and have a table of contents. The table of contents will list: the content strand, title of the lesson, and the appropriate grade level. Altogether, you will have a collection of 20 (4 x 5 content standards) lesson plans.

[See rubric attached]

3. Field-based Assessments (310 points)

- One Lesson plan (using standard template) taught to full class in the field (30 points)
- Follow-up re-teach to small group in the field [completed after full-lesson has been taught] (30 points)
- Interaction synopsis a reflection on how teach-reteach impacted the candidate as well as the students (30 points)
- Differentiated instruction- shadow a student with special needs and recommend ways to improve instruction and accommodations (30 points)
- Participation (4 reflections posted in Discussion Board) (40 points)
- Common Assignments in methods block –mentor's evaluation, portfolio, candidate's dispositions and professionalism (150 points)

4. In-class assignments (90 points) - Daily reflections, participations, and team work

Evaluation/Grading: A variety of evaluative processes are utilized including: rubrics, teacher evaluations, self-evaluations, and the professional dispositions. A total of 600 points may be accumulated in this course. The corresponding letter grades follow the distribution below.

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A = 552 - 600 points B = 492 - 551.99 points C = 432- 491.99 points D = 372 - 431.99 points F = 372 points or below
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Expectations:

- Regular attendance, prepared to actively participate in class and in the field
- Team collaboration, active listening
- Thoughtful reflections on teaching practices and learning opportunities

- Relate or make cognitive connections between and among readings, discussions, activities, assignments and the PPR competencies.
- Consistently demonstrate good disposition
- Check Blackboard regularly for assignments, announcements, and grades.

Attendance Policy

Regular and punctual attendance is required and will be documented every class period.

As per University policy, candidates will not be penalized for three (3) hours of absence during the semester. This class period absence should be used carefully for emergencies and illnesses. It is important that candidates notify the professor via email or phone call prior to, or on the day of, the absence regardless of the reason for the absence.

Upon the second absence, after the three (3) hours of absence allowed by the University, the Department of Curriculum and Instruction will be notified and a notation will be made in the candidate's file. After the third absence, the candidate will attend a conference with the course professor as well as the Chairperson of Curriculum and Instruction to discuss and evaluate reasons for the absences, and to determine if the candidate needs to continue in the program. Excessive absences can constitute reasons for lowering of semester grades, and possibly, removal from the course or block of courses.

It is the student's responsibility to obtain prior approval from the instructor for making up class assignments. Documentation from the student may be required for approval. It is also the student's responsibility to retrieve handouts and materials from the missed class from classmates. Any missed group work may not be made up.

Tardies

If a student is fifteen or more minutes late to class or leaves class fifteen minutes or more before class is over, an absence will be recorded. A student who shows a pattern of being a few minutes late (but less than 15) will be notified that continuation of that pattern will result in an absence.

IF YOU KNOW YOU WILL BE ABSENT:

- Notify the professor (or mentor) via email or phone call prior to, or on the day of the absence:
- Contact a student in the class in order to find out what work was completed in class and what homework is required of you for the next class meeting;
- Designate a student to collect handouts or materials received in class during your absence;
- Complete the assignments that are due and bring them to the next class meeting so you will stay current with the assignments. Any missed in-class group work may not be made up.

Professionalism

Methods students are expected to enthusiastically participate in all school-based activities and mentor's classroom activities. This includes your professionalism in all school-based and seminar activities. Respect for the instructors and other students will be demonstrated at all times. Lack of professionalism may warrant a review by the department and the college concerns committee. **It can also result in your dismissal from the program**.

Preparation and Enthusiastic Participation

Reading assignments are very important and are to be completed before class on the day the topic is introduced. Since classroom instruction will be based on learner-centered discussions and activities, each student has a commitment to the class and/or group to come to class prepared to actively participate and to apply the information acquired through the reading.

Grading of Assignments

All assignments will be graded and returned to you in a timely manner. If an assignment is not done correctly, you will receive an incomplete and be asked to redo the assignment. The incomplete will remain until assignments are turned in with corrections. Points may be deducted for assignments that have to be redone.

ADDITIONAL COMMENTS

- 1. All assignments for EED 434 are designed to connect the classroom instruction you receive on campus with your field-based requirements. For best results, schedule the lessons you need to teach with your cooperating teacher as far in advance as possible.
- 2. Required assignments need to be word-processed and double spaced on standard-sized paper (similar to this sheet) using a font size between 12 and 14. Forms distributed in class that you complete for these assignments may be neatly written in ink. Because some papers will need editing or revising, save all files on a disk so that they can be easily retrieved.
- 3. Students are encouraged to submit all assignments early in the semester. Assignments turned in on time are allowed to be corrected. You are given one week to correct and resubmit any items that are to be corrected. The final date to submit all written assignments you are preparing and/or resubmitting for EED 434 is **the final scheduled day of class.**

Course Evaluation by students (IDEA System)

[The student will evaluate the course and instructor using the objectives listed below] This course will help teacher candidates in the following ways:

- 1. Apply course materials to improve thinking, problems solving, and decisions. (Essential)
- 2. Acquire skills in working with others as a team member. (Important)
- 3. Find and use resources for answering questions or solving problems. (Essential)
- 4. Develop specific skills, competencies, and points of view needed by professionals in the field most closely related to this course. (Important)

References

- Van de Walle, J. (2007). *Elementary and Middle School Mathematics: Teaching Developmentally.* [6th Edition] Boston: Pearson Education, Inc. (ISBN: 0-205-48392-5).
- Principles and Standards for School Mathematics [PSSM] (on line- www.nctm.org)
- *Mathematics in the Early Years*, J. Copley, (Ed.)
- *The Young Child and Mathematics*, by J. Copley
- Field Experience Guide for Elementary and Middle School Mathematics: Teaching Developmentally by Jennifer M. Day-Williams published by Allyn & Bacon, 2007.
- Helping Children Learn Mathematics, National Research Council, 2002.
- *UT-Dana Center* <u>http://www.utdanacenter.org/</u>
- <u>www.utdanacenter.org/mathtoolkit</u> sample lessons to help clarify the TEKS.
- 2006 Curriculum Focal Points (PK-Gr. 8), published by NCTM
- NCTM Journal: Teaching Children Mathematics (12 issues per year)

Web sites for information on teacher preparation and mathematics standards:

http://www.tea.state.tx.us -- Texas Math Curriculum (TEKS) and Student Assessment (TAKS)
 http://www.nctm.org --- PSSM, 2000, National standards for school mathematics (K-12)
 recommended by the National Council of Teachers of Mathematics (NCTM).
 http://www.texes.nesinc.com/ --- Preparation manual for the teacher examination [EC-4 Generalist, Pedagogy and Professional Responsibilities (PPR)].
 http://www.learningthroughlistening.org/Classroom_Teaching_Tools/Lesson_Plans/31/ http://school.discovery.com/lessonplans/k-5.html

Online Resources:

http://www.Illuminations.nctm.org [click on Lessons, Standards, Tools, or Web resources]

<u>www.nctm.org/standards</u> - information about national mathematics standards [Principles and Standards for School Mathematics (2000); Focal Points (2007)]

TENTATIVE COURSE CALENDAR

Week/ # of in-	Date	Topic	PPR Competencies	Field dates & Assignment	Class Assignments
class meetings					
	Wed 01/16	8:00–1:30, General Orientation for Methods Block students (@SAM)			
1 (1)	01/17	Course overview; Expectations; Who needs Math? How do children learn? Why reform math education?	Domain 1: 1,2,3, 4		PSSM 2000
2 (2)	01/22 01/24	Teaching Strategies; Best Practices Introduction of TEKS	Domain 1: 3, 4 Domain 2: 6 Domain 3: 7,8,9, and 10		1/23 - Analysis of Ms. Toliver's teaching (15 pts) Focal Points
3 (2)	01/29 01/31	Math standards in Texas and NCTM Focal Points Unit Design TEKS Learner-centered instructional model Multiple representations	Domain 1: 1,2, 3, and 4 Domain 2: 5 Domain 3: 7,8,9,and 10 Domain 4: 11 and 13		TEKS Math (K- Gr. 4) Analysis of math standards (strengths/weak- nesses) (15 pts)
4 (2)	02/05 02/07	Teaching number concepts and operations using math-literature books TEKS/TAKS	Domain 2 Domain 3		2/07 -DEAR- Math-Lit book review (15 pts)
5 (2)	02/11 – 02/14	Field Experience Learning Opportunities: Overview Portfolio, PDAS, TWS, PPR competencies	Domain 2 Domain 3	Getting Ready for Field Experience	Feb 13- LSC Theatre Professional Development: Brain Research Seminar
6 (1)	02/21	Assessment Assessing young learners (videotape) Designing rubrics TEKS/TAKS objectives	Domain 2 Domain 3	Feb 19-20	Alternative assessment and scoring rubric (15 points)
7 (1)	02/28	Designing a learning unit Teaching algorithm, place value, estimation	Domain 2 Domain 3	Feb 26-27 Differentiated Instruction	
8 (1)	03/06	Teaching Geometry Teaching vocabulary	Domain 2 Domain 3		Concept map for a 5-day Math Unit
	March 10-14 Spring Break			March 10-14 Spring Break	

9 (2)	03/18 03/20	Teaching Measurement Designing a unit on measurement	Domain 2 Domain 3	*Lesson Plan using	
(2)	03/20	Designing a unit on measurement	Domain 3	manipulatives	
				(must have	
				instructor's	
				approval	
				prior to	
				teaching)	
10	03/24-		Domain 2	March 24-27	Weekly
(0)	03/28	The math classroom, resources,	Domain 3	ABC III	reflection 1
		climate, student diversity			Post on
					BlackBoard
				TINI NI	(10 pts)
11	03/31 –	Teacher Questioning	Domain 2	March 31-	Weekly
(0)	04/04	Student questions	Domain 3	April 3	reflection 2
				Plan for teach	Post on
				and reteach	BlackBoard
	0.4.40=				(10 pts)
12	04/07-	The teacher as a reflective	Domain 2	April 7-10	Weekly
(0)	04/10	practitioner	Domain 3	Re-teach	reflection 3
				Lesson Plan	Post on
				and	BlackBoard
				Interaction synopsis	(10 pts)
13	04/14-	Debrief:	Domain 2	Post in TK20	Weekly
(0)	04/17	Looking back at field experience	Domain 3	Best lesson	reflection 4
(0)	04/17	and looking forward to student	Domain 3	plan taught	Post on
		teaching		during Field	BlackBoard
				Experience	(10 pts)
14	04/22	Probability	Domain 2	Return to	Due: Resource
(1)		Learning centers	Domain 3	TUC for class	File (100 pts)
				meetings	` ' '
15	04/29	IDEA Evaluation, post assessment	Domain 2		Due: One Week
(2)	05-01	Teaching Algebra (K-4), Data	Domain 3		Unit (100 pts)
		Analysis			
		Graphing tools			
16	05/06 -	Presentation of unit/assessment plan			
(1)	03/00	May 8th – 9:00 -1:00 Portfolio			
(*)		Interview (Section 06/Taube)			
9:00 am	May 19	Post Final Grades			

Scoring Guide for 5-Day Unit (NOTE: This rubric is similar to the one on the TWS)

_		(110 1E: This tubile is simil	ter to the one on the I ((B)	
Rating	Points	3 Indicator Met	2 Indicator Partially Met	1 Indicator Not Met
Indicator				
1. Learning Goals	12 points			
1a. Significance, Challenge and variety		Goals reflect several types or levels of learning and are significant and challenging.	Goals reflect several types or levels of learning but lacks significance or challenge.	Goals reflect only one type of level of learning.
1b. Clarity		Most of the goals are clearly stated as learning outcomes.	Some of the goals are clearly stated as learning outcomes.	Goals are not stated clearly and are activities rather than learning outcomes.
1c. Appropriateness for students		Most goals are appropriate for the development; pre-requisite knowledge, skills and other student needs.	Some goals are appropriate for the development; pre- requisite knowledge, skills, experience; and other student needs	Goals are not appropriate for the development; pre-requisite knowledge, skills, experience; or other student needs.
1d. Alignment with national, state or local standards		Most goals are appropriate for the development; pre-requisite knowledge, skills, experiences; and other student needs.	Some goals are appropriate for the development; pre- requisite knowledge, skills, experiences; and other student needs.	Goals are not appropriate for the development; pre-requisite knowledge, skills, experiences; and other student needs.
2. Accurate representation of content	Score x 4	Teacher's use of content appears to be accurate. Focus of the content is congruent with the big ideas or structure of the discipline.	Teacher's use of content appears to be mostly accurate. Shows some awareness of the big ideas or structure of the discipline.	Teacher's use of content appears to contain numerous inaccuracies. Content seems to be viewed more as isolated skills and facts rather than as part of a larger conceptual structure.
3. Unit and lesson structure.	Score x 4	All lessons within the unit are logically organized and appear to be useful in moving students toward achieving the learning goals.	The lessons within the unit have some logical organization and appear to be somewhat useful in moving students toward achieving the learning goals.	The lessons with the unit are not logically organized organization (e.g., sequenced).
4. Web sites and other resources, materials	(Score x 3) +1	All materials, web sites, etc. are interesting, age appropriate; Web sites are briefly and clearly described.	Web sites are interesting but not well described; materials, and tools used are less appropriate for the grade level.	Web sites not interesting, appealing and not described. Some materials, tools were not adequate and not age appropriate.
5. Hands-on activities for conceptual understanding	Score x 4	Activities vary, use multiple representations; Worthwhile mathematical tasks.	Less engaging activities; Less likely to engage students in discourse.	Not worthwhile tasks or activities; Not likely to promote conceptual understanding.
6. Team reflection (all members		Addressed thoughtfully all 6 issues/questions related to the	Only 4-5 issues were addressed; 300-400 words,	Less than 4 areas addressed; less than 300 words; Not insightful

participated)	Score x 4	PPR and TEKS; 500+words, typed double-space, font size 12.	typed, double space; font size 12. Somewhat insightful reflection.	reflection. Font size 12.
7. Assessment Plan	30 points Score x 2			
7a. Alignment with learning goals and instruction		Each of the learning goals is assessed through the assessment plan; assessments are congruent with the learning goals in content and cognitive complexity.	Some of the learning goals are assessed through the assessment plan, but many are not congruent with learning goals in content and cognitive complexity.	Content and methods of assessment lack congruence with learning goals or lack cognitive complexity.
7b. Clarity of criteria and standards for performance		Assessment criteria are clear and are explicitly linked to the learning goals.	Assessment criteria have been developed, but they are not clear or are not explicitly linked to the learning goals.	The assessments contain no clear criteria for measuring student performance relative to the learning goals.
7c. Multiple modes and approaches		The assessment plan includes multiple assessment modes (e.g., (performance assessments, lab reports, research projects, etc.) and assess student performance throughout the instructional sequence.	The assessment plan includes multiple modes but all are either pencil/paper based (i.e. they are not performance assessments) and/or do not require the integration of knowledge, skills and reasoning ability.	The assessment plan includes only one assessment mode and does not assess students before, during, and after instruction.
7d. Technical soundness		Assessments appear to be valid; scoring procedures are explained; most items or prompts are clearly written; directions and procedures are clear to students.	Assessments appear to have some validity. Some scoring procedures are explained; some items or prompts are clearly written; some directions and procedures are clear to students	Assessments are not valid; scoring procedures are absent or inaccurate; items or prompts are poorly written; directions and procedures are confusing to students.
7e. Adaptation based on the individual needs of students		Teacher makes adaptations to assessments that are appropriate to meet the individual needs of most students.	Teacher makes adaptations to assessments that are appropriate to meet individual needs of some students.	Teacher does not adapt assessments to meet the individual needs of students or these assessments are inappropriate.
TOTAL				

Scoring Rubric for Math Resource File

CRITERIA	20 Points	10 Points	0 Points
1. Content Strands and Process standards	The five content standards are present and addressed as in directions of assignment. All five process standards are covered.	Four of the content standards are present and addressed as in the directions of the assignment. 3-4 process standards are covered.	Less than four of the content standards are present and addressed as in the directions of the assignment. Only 1-2 process standards are covered
2. Table of Contents, Format, and Citation	Table of content is provided in manner described; clear and concise. Each lesson plan addresses the required sections and contains the proper citation	The table of content is incomplete. Each lesson plan addresses the required sections but one or more lessons do not contain the proper citations	Table of content is missing. Lesson plans do not address the required sections and/or do not contain the proper citation
3. Alignment between objective (student expectation) and assessment	Each lesson plan shows a tight link between student expectation and assessment	Some lesson plans do not show a strong link between assessment and objectives	Most of the lesson plans do not show a strong link between assessment and objectives
4. Sources per content strand	Student utilized 3 or more sources per content standard	Student utilized 2 sources per content standard	Student utilized less than 2 sources per content standard
5. Presentation and appearance	Resource file is neat, "user- friendly" and contains all components as required	Resource file is neat, "user-friendly" but does not contain all required components.	Resource file is not well organized, and does not contain all components as required