Assessment #3
Ability to Plan Instruction:
Mathematics Unit and Lesson Plan Rubric

a. Description of the assessment

The Mathematics Unit and Lesson Plan Rubric is an assessment that examines the candidates' development of their ability to plan instruction throughout the program. Candidates demonstrate their ability to create effective lesson plans in their Clinical Practice I field practicum and create a unit plan that is used to assess the teacher candidates' knowledge, abilities, and skills to organize, plan, and implement a unit of study that addresses the Common Core State Standards for Mathematics.

The unit plan is completed by the teacher candidate in the Clinical Practice I semester, which consists of three courses taken concurrently: MTT 390 Methods of Teaching Math II, SED 399 Pedagogy in the Secondary Classroom, and SPE 323 Content Literacy in an Inclusive classroom (Note that this was prior to the changes in the Secondary Education program) . During Clinical I, candidates complete a 100-hour field practicum in a public school setting. Cooperating teachers assign a topic for the unit plan and the candidates design their unit in both their MTT and SED courses. The Unit Plan Assignment is designed for all secondary education candidates in the SED 399 course, while the MTT 390 Unit Plan Project is for the Mathematics Secondary Education candidates to give more specific instructions for their unit plan requirements (see part e). The candidates teach the two-week unit during the last two weeks of their practicum. The MTT 390 professor evaluates the unit plan using the Mathematics Unit and Lesson Plan Rubric.

b. Alignment of NCTM Standards and Indicators with this assessment
Please see the Scoring Guide in Part f for a more detailed alignment.

Program Standard	**Elements Addressed**
Standard 3: Content Pedagogy	3a, 3b, 3c, 3d, 3e, 3f
Standard 4: Mathematical Learning Environment	4b, 4d, 4e
Standard 6: Professional Knowledge and Skills	6b, 6c
Standard 7: Secondary Mathematics Field Experiences and Clinical Practice	7c

c. Data Findings

This assessment was substantially revised in the summer of 2017 to align with the 2012 NCTM CAEP Standards. In addition, in the year 2018-19, due to new state requirements explained in the context statement, the program shifted from offering Clinical Practice I only in the spring semester to the fall semester. Therefore, even though we have 2 administrations of the rubric, we only had 1 student who did Clinical Practice I in Spring 2019. Clinical I will now be only offered in the fall starting Fall 2019.

All candidates scored at the proficient level or above in the rubric categories of research (3b), differentiation (3c), instructional technology (3c), communication (3d), connections (3d), student misconceptions (3e), and equity (4d). One or two candidates (4.55% or 9.09% respectively) at most scored below proficient in learning goals and standards (3a), instructional strategies (3c), questioning (3e), developmentally appropriate learning opportunities (4b), use of instructional tools (4e), reflection (6b), resources (6c), and overall performance (7c). In the category of assessment (3f), three candidates (13.64%) scored below proficient. Where they seem to do exceptionally well overall is in connections (3d), since all candidates scored proficient and 8 candidates (36.36%) scored at the "exceptional" level in that category.

d. Data Interpretation

The Mathematics Unit and Lesson Plan Assessment, in general, provides evidence that our candidates can successfully apply their content and pedagogical skills in planning a unit for the secondary mathematics classroom during their Clinical Practice I experience. They are particularly strong in providing ample opportunity for students to make connections among mathematics, other content areas, everyday life, and the workplace (3d). The weakest area seems to be including both formative and summative assessments in order to monitor and measure student learning (3f).

It is unfortunate that with the transition to the new program, we only had one candidate for the Spring 2019 administration of the assessment. Since it is a newly revised assessment, we therefore only have one administration with sufficient data to draw conclusions. We will begin administering this assessment in the fall starting in Fall 2019.

e. Assessment

Written Unit Assignment
School of Education
The College of New Jersey

Overview:

As a program requirement, you are expected to design, teach and assess learning in an instructional unit. The unit is to be planned as a series of 8-10 connected lessons which you will teach during the course of your practicum at the school site where you are placed. You will plan the unit based on a theme or topic that is approved by the cooperating teacher, and which aligns with and lends to the (practicum) school's curriculum. The lessons should be conceptually integrated. The unit will begin with a lesson that introduces the unit topic and end with a culminating activity. You will also reflect on your teaching and student learning as you teach your unit.

Goals of the assignment: You should demonstrate:

- Your ability to use your knowledge of learning and development to create an engaging, supportive, and challenging learning environment.
- Your ability to design instruction that draws connections across the curriculum, adapt to the diverse needs of learners and promotes critical thinking, problem solving and performance skills.
- Knowledge of different kinds of assessments and the ability to use a variety of assessment strategies to guide instruction.
- Your understanding of professional guidelines, the capability of upholding ethical standards, and the advocacy of children.
- Your ability to engage in reflection.

Required Format:

I. Title
II. Table of Contents
III. Rationale- compose a detailed statement that explains the enduring understandings the unit will develop.
IV. Visual representation(s)/Overview —design a concept map(s), flow chart, calendar or other graphic organizers that visually represent the integration of the unit content.
V. Preparing the learning environment—describe how you set up the physical space and learning environment to support teaching your unit.
VI. Unit Essential Questions— identify the key questions that focus your unit.
VII. Lesson Plans — design lessons that include the following elements:

A.) Lesson rationale and/or essential questions
B.) Student learning goals

1.) specify objectives
2.) identify Common Core Standards for Mathematics
3) specify assessment strategy for each objective

C.) Procedure
1.) "the hook" (motivating strategy)
2.) lesson activities & experiences
3.) key questions, examples and modeling
4.) summary/ closure

D) Resources and supporting documents (include appropriate concrete materials, stimulating curricula, and technological tools that will be used to build students' understanding of mathematical concepts.)
E) Reflection – should be grounded in evidence and consider implications for future student learning.

The lesson plans should

- Activate student interest and motivation
- Deliver content rich instruction
- Encourage problem solving, exploration, critical thinking skills, and active engagement *(by means of lesson activities, experiences and questions*)
- Utilize different instructional strategies including cooperative learning, collaboration, independent and small group tasks (*by means of pedagogical content specific strategies)*
- Apply assessment principles and use various tools and strategies both formal and informal e.g. observation, questioning, criterion and/or standardized tests, projects, peer assessment, portfolio of student work, etc., that assess student learning and progress.
- Adapt the lesson to meet the needs of diverse (abilities, learning styles, culture) learners in the classroom

VIII Unit Culminating Assessment —describe how unit closing experience connects back to unit goals.

Mathematics Unit and Lesson Plan Rubric 2017

by COE Administrator

Mathematics Unit and Lesson Plan Rubric 2017

Instructions

Attachments Unit_Plan_Project.docx, TCNJ_Unit_Plan_Template_Updated_1.17.17.docx, TCNJ_Lesson_Plan_Template_1_17_17.docx

Standards

NCTM-CAEP-2012.SEC.3.a	Apply knowledge of curriculum standards for secondary mathematics and their relationship to student learning within and across mathematical domains.
NCTM-CAEP-2012.SEC.3.b	Analyze and consider research in planning for and leading students in rich mathematical learning experiences.
NCTM-CAEP-2012.SEC.3.c	Plan lessons and units that incorporate a variety of strategies, differentiated instruction for diverse populations, and mathematics-specific and instructional technologies in building all students conceptual understanding and procedural proficiency.
NCTM-CAEP-2012.SEC.3.d	Provide students with opportunities to communicate about mathematics and make connections among mathematics, other content areas, everyday life, and the workplace.
NCTM-CAEP-2012.SEC.3.e	Implement techniques related to student engagement and communication including selecting high quality tasks, guiding mathematical discussions, identifying key mathematical ideas, identifying and addressing student misconceptions, and employing a range of questioning strategies.
NCTM-CAEP-2012.SEC.3.f	Plan, select, implement, interpret, and use formative and summative assessments to inform instruction by reflecting on mathematical proficiencies essential for all students
NCTM-CAEP-2012.SEC.4.b	Plan and create 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.
NCTM-CAEP-2012.SEC.4.d	Demonstrate equitable and ethical treatment of and high expectations for all students
NCTM-CAEP-2012.SEC.4.e	Apply mathematical content and pedagogical knowledge to select and use instructional tools such as manipulatives

and physical models, drawings, virtual environments, spreadsheets, presentation tools, and mathematics-specific technologies (e.g., graphing tools, interactive geometry software, computer algebra systems, and statistical packages); and make sound decisions about when such tools enhance teaching and learning, recognizing both the insights to be gained and possible limitations of such tools.

NCTM-CAEP-2012.SEC.5.b Engage students in developmentally appropriate mathematical activities and investigations that require active engagement and include mathematics-specific technology in building new knowledge.

NCTM-CAEP-2012.SEC.6.b Engage in continuous and collaborative learning that draws upon research in mathematics education to inform practice; enhance learning opportunities for all students mathematical knowledge development; involve colleagues, other school professionals, families, and various stakeholders; and advance their development as a reflective practitioner.

NCTM-CAEP-2012.SEC.6.c Utilize resources from professional mathematics education organizations such as print, digital, and virtual resources/collections.

NCTM-CAEP-2012.SEC.7.c Develop knowledge, skills, and professional behaviors across both middle and high school settings; examine the nature of mathematics, how mathematics should be taught, and how students learn mathematics; and observe and analyze a range of approaches to mathematics teaching and learning, focusing on tasks, discourse, environment, and assessment.

MTT 390 Unit and Lesson Plan Rubric

	Exceptional (3.000 pts)	**Proficient** (2.000 pts)	**Needs Improvement** (1.000 pt)
Learning goals and standards NCTM-CAEP-2012.SEC.3.a	Lesson and unit plans address appropriate learning goals and curriculum standards. All objectives, activities, and assessments are aligned with the appropriate mathematical domains of the Common Core State Standards for mathematics.	Lesson and unit plans address appropriate learning goals and curriculum standards. One or two appropriate standards may be missing. Most objectives, activities, and assessments are aligned with the appropriate mathematical domains of the Common Core State Standards for mathematics.	Standards or learning goals are not appropriate, do not align with unit activities; or many appropriate standards are missing.
Research NCTM-CAEP-2012.SEC.3.b	Lesson plans incorporate multiple strategies that are supported by research to lead students in rich mathematical learning experiences. Research support is explicitly cited.	Lesson plans each incorporate at least one strategy that is supported by research to lead students in a rich mathematical learning experience. Research support may not be explicitly cited.	The incorporation of research-supported strategies to lead students in rich mathematical learning experiences is minimally present in the unit.
Instructional	Unit plan incorporates a variety	Unit plan incorporates	Very few or minimal

strategies NCTM-CAEP-2012.SEC.3.c	of instructional strategies in order to build all students' conceptual understanding and procedural proficiency.	instructional strategies in order to attempt to build students' conceptual understanding and procedural proficiency, but other strategies may be better choices in some cases.	instructional strategies are present in unit plan, or chosen strategies would not build students' conceptual understanding and procedural proficiency.
Differentiation NCTM-CAEP-2012.SEC.3.c	Unit plan includes differentiated instruction for diverse populations in order to build all students' conceptual understanding and procedural proficiency throughout all lesson plans.	Unit plan includes differentiated instruction for diverse populations in order to attempt to build all students' conceptual understanding and procedural proficiency, but some lessons are missing needed differentiation.	Differentiation throughout unit plan is minimal.
Instructional technology NCTM-CAEP-2012.SEC.3.c	Unit plan includes mathematics-specific and instructional technologies in order to build all students' conceptual understanding and procedural proficiency where appropriate throughout all lesson plans.	Unit plan includes mathematics-specific and instructional technologies in order to attempt to build all students' conceptual understanding and procedural proficiency where appropriate, but some lessons could be improved by using certain technology.	Use of technology is minimal in unit plan and lessons would be improved by appropriate technology.
Communicatio NCTM-CAEP-2012.SEC.3.d	Unit plan provides many opportunities for students to communicate about mathematics.	Unit plan provides some opportunities for students to communicate about mathematics, but there are some missed opportunities for communication in certain lessons.	Unit plan provides minimal opportunities for students to communicate about mathematics.
Connections NCTM-CAEP-2012.SEC.3.d	Unit plan provides ample opportunity for students to make connections among mathematics, other content areas, everyday life, and the workplace.	Unit plan provides some opportunity for students to make connections among mathematics, other content areas, everyday life, or the workplace. Some lessons could be improved by providing students with opportunities to make connections.	Unit plan provides minimal opportunities for students to make connections among mathematics, other content areas, everyday life, or the workplace.
Questioning NCTM-CAEP-2012.SEC.3.e	Unit plan includes high quality tasks, strategies to guide mathematical discussions, and a range of questioning strategies to engage students in learning and communicating about mathematics.	Unit plan includes some high quality tasks, strategies to guide mathematical discussions, and questioning strategies, but more questions are needed to engage students in learning and communicating about mathematics.	Tasks are not all high quality, and there are very few strategies for questioning and discussion.
Student misconception NCTM-CAEP-2012.SEC.3.e	Plans correctly identify key mathematical ideas and address student misconceptions in all lessons.	Plans correctly identify key mathematical ideas and address student misconceptions in most lessons.	Many plans do not identify key mathematical ideas or address student misconceptions.
Assessment NCTM-CAEP-2012.SEC.3.f	The unit plan includes both formative and summative assessments in order to monitor and measure student learning.	The unit plan includes both formative and summative assessments, but formative assessment may not be used consistently throughout lesson plans.	Unit plan does not include a variety of assessments (both formative and summative).
Developmental appropriate	All learning activities are developmentally appropriate,	Most learning activities are developmentally appropriate,	Learning activities are either not clearly developmentally

learning opportunities NCTM-CAEP-2012.SEC.4.b	sequential, challenging, and explicitly grounded in mathematics education research. Plans include many opportunities for students to be actively engaged in building new knowledge from prior knowledge and experiences.	sequential, and explicitly grounded in mathematics education research. Some lesson plans include opportunities for students to be actively engaged in building new knowledge from prior knowledge and experiences.	appropriate, sequential, or explicitly grounded in mathematics education research. Plans are not included for students to be actively engaged in building new knowledge from prior knowledge and experiences.
Equity NCTM-CAEP-2012.SEC.4.d	All pedagogical strategies in the lessons engage students in the learning process equitably. The expectation that every student can learn is conveyed throughout the unit.	Most pedagogical strategies in the lessons engage students in the learning process equitably. The expectation that every student can learn is conveyed throughout most of the unit.	Pedagogical strategies in the lessons do not clearly engage students in the learning process equitably. The expectation that every student can learn is either missing or is not clear.
Use of instructional tools NCTM-CAEP-2012.SEC.4.e	The unit plan reflects skillful application of content and pedagogical knowledge to select and use many varied instructional tools, such as manipulatives, physical models, drawings, virtual environments, spreadsheets, presentation tools, dynamic graphing tools, computer algebra systems, dynamic statistical packages, graphing calculators, data-collection devices, and interactive geometry software, in order to enhance teaching and learning, and recognize possible limitations of such tools.	The unit plan reflects growing awareness of and use of appropriate instructional tools, such as manipulatives, physical models, drawings, virtual environments, spreadsheets, presentation tools, dynamic graphing tools, computer algebra systems, dynamic statistical packages, graphing calculators, data-collection devices, and interactive geometry software, in order to enhance teaching and learning, and the possible limitations of such tools. Some parts of unit could be enhanced by the use of other tools.	Some instructional tools are used but do not support teaching and learning effectively, or many parts of the unit could be clearly enhanced by the use of other tools.
Reflection NCTM-CAEP-2012.SEC.6.b	Reflection explicitly clarifies how a variety of data were examined independently and collaboratively to evaluate the outcomes of teaching and learning and how that along with mathematics education research is used to adapt planning and practice in the unit. The reflection explicitly clarifies how regular data analyses advance their development as a reflective practitioner.	Reflection explicitly clarifies how a variety of data were examined independently and collaboratively to evaluate the outcomes of teaching and learning to adapt planning and practice in the unit.	Reflection does not clearly indicate that a variety of data were examined to evaluate the outcomes of teaching and learning to adapt planning and practice in the unit.
Resources NCTM-2012.SEC.6c	Resources from professional mathematics education organizations are explicitly integrated throughout the unit.	Resources from professional mathematics education organizations are explicitly integrated at some point in the unit.	Resources from professional mathematics education organizations are not explicitly integrated in the unit.
Overall performance NCTM-CAEP-2012.SEC.7.c	TC has demonstrated exemplary knowledge, skills, and professional behaviors by the end of Clinical Practice I. Candidate thoroughly examined the nature of mathematics, how mathematics should be taught, how students learn mathematics, and observed and analyzed a range of approaches to mathematics teaching and learning (e.g.,	TC has demonstrated proficient knowledge, skills, and professional behaviors by the end of Clinical Practice I. Candidate examined the nature of mathematics, how mathematics should be taught, how students learn mathematics, and observed and analyzed a range of approaches to mathematics teaching and learning (e.g.,	TC has demonstrated limited knowledge, skills, and professional behaviors by the end of Clinical Practice I. Candidate minimally examined the nature of mathematics, how mathematics should be taught, how students learn mathematics, and observed and analyzed a limited scope of approaches to mathematics teaching and learning (e.g.,

	tasks, discourse, environment, and assessment).	tasks, discourse, environment, and assessment).	tasks, discourse, environment, and assessment).

g. Data Charts

This report is created by Cathy S Liebars at 2018-06-21 14:36:06

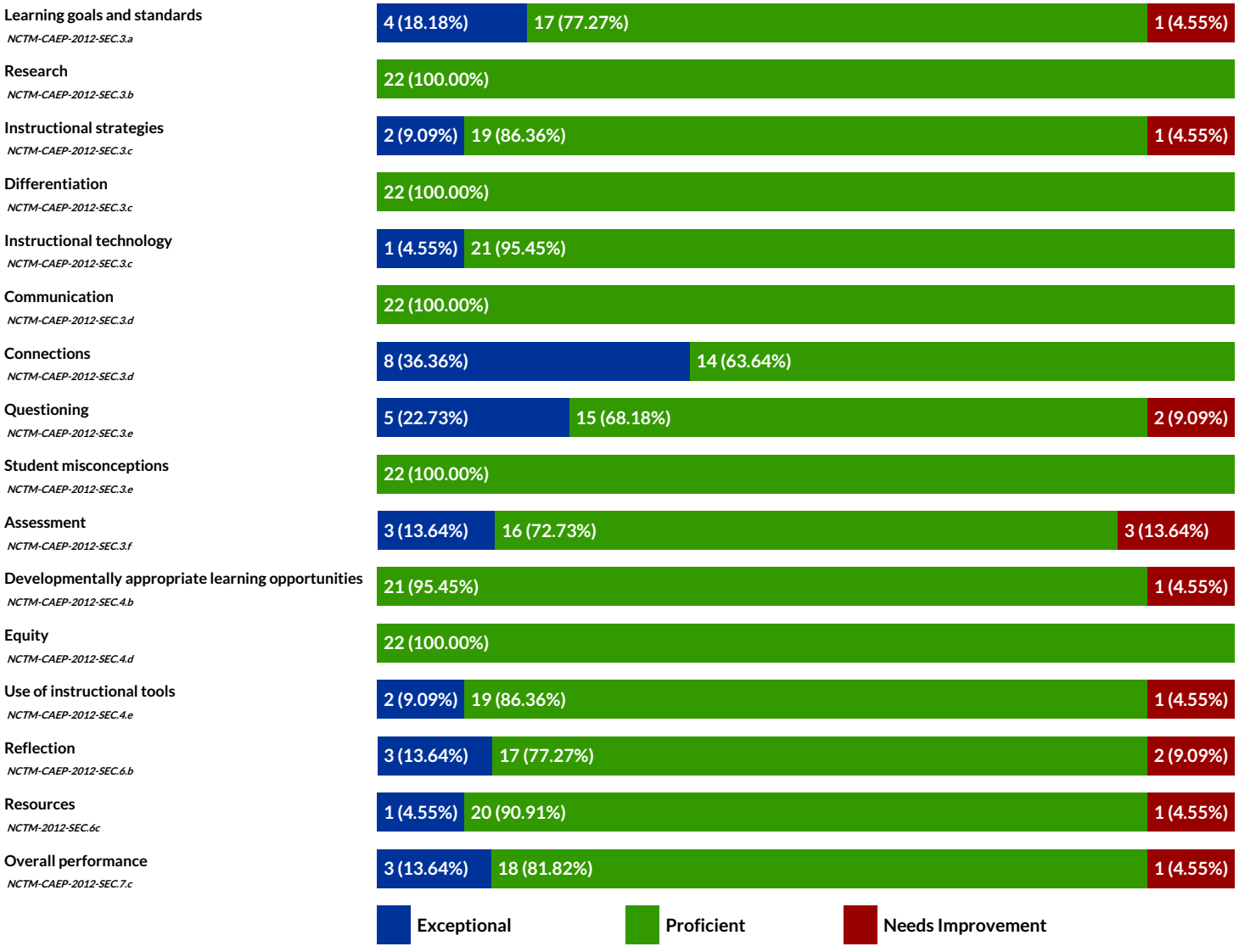
My Reports - Assessment Report

General Information

Title	Mathematics Unit and Lesson plan data 2018
Institution	NJ: The College of New Jersey
Assessment Rubric	Mathematics Unit and Lesson Plan Rubric 2017 - MTT 390 Unit and Lesson Plan Rubric (COE Administrator)
Assessment Type	Summative
Scoring Type	Final
Inter-Rater Summary	Y

Rubric: MTT 390 Unit and Lesson Plan Rubric

	Exceptional *(3 pts)*	Proficient *(2 pts)*	Needs Improvement *(1 pts)*	*Mean*	*Mode*	*Stdev*
Learning goals and standards (3a)	4	17	1	2.136	2.000	0.457
Research (3b)	0	22	0	2.000	2.000	0.000
Instructional strategies (3c)	2	19	1	2.045	2.000	0.366
Differentiation (3c)	0	22	0	2.000	2.000	0.000
Instructional technology (3c)	1	21	0	2.045	2.000	0.208
Communication (3d)	0	22	0	2.000	2.000	0.000
Connections (3d)	8	14	0	2.364	2.000	0.481
Questioning 3e)	5	15	2	2.136	2.000	0.547
Student misconceptions (3e)	0	22	0	2.000	2.000	0.000
Assessment (3f)	3	16	3	2.000	2.000	0.522
Developmentally appropriate learning opportunities 4b)	0	21	1	1.955	2.000	0.208
Equiy (4d)	0	22	0	2.000	2.000	0.000
Use of instructional tools (4e)	2	19	1	2.045	2.000	0.366
Reflection (6b)	3	17	2	2.045	2.000	0.475
Resources (6c)	1	20	1	2.000	2.000	0.302
Overall performance (7c)	3	18	1	2.091	2.000	0.417



Inter-Rater Summary

	Snider, Rachel	*Mean*	*Stdev*
Learning goals and standards	2.136	2.136	0.000
Research	2.000	2.000	0.000
Instructional strategies	2.045	2.045	0.000
Differentiation	2.000	2.000	0.000
Instructional technology	2.045	2.045	0.000
Communication	2.000	2.000	0.000
Connections	2.364	2.364	0.000
Questioning	2.136	2.136	0.000
Student misconceptions	2.000	2.000	0.000
Assessment	2.000	2.000	0.000
Developmentally appropriate learning opportunities	1.955	1.955	0.000
Equity	2.000	2.000	0.000
Use of instructional tools	2.045	2.045	0.000
Reflection	2.045	2.045	0.000
Resources	2.000	2.000	0.000
Overall performance	2.091	2.091	0.000

This report is created by Cathy S Liebars at 2019-06-21 16:00:10

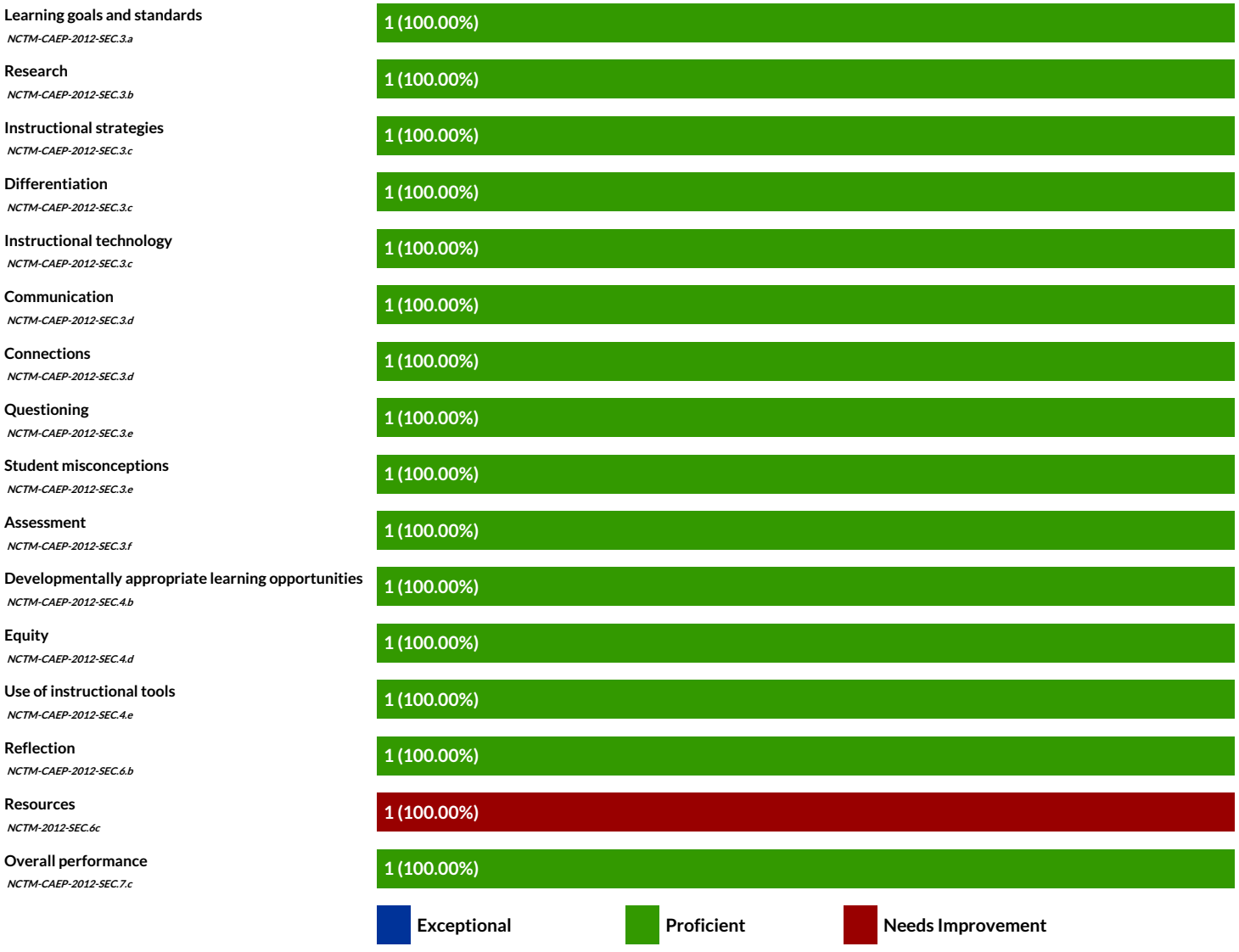
My Reports - Assessment Report

General Information

Title	Mathematics Unit and Lesson plan data Spring 2019
Institution	NJ: The College of New Jersey
Assessment Rubric	Mathematics Unit and Lesson Plan Rubric 2017 - MTT 390 Unit and Lesson Plan Rubric (COE Administrator)
Assessment Type	Summative
Scoring Type	Final
Inter-Rater Summary	N

Rubric: MTT 390 Unit and Lesson Plan Rubric

	Exceptional *(3 pts)*	Exceptional *(3 pts)*	Proficient *(2 pts)*	Proficient *(2 pts)*	Needs Improvement *(1 pts)*	Needs Improvement *(1 pts)*	*n*	*Mean*	*Mode*	*Stdev*
Learning goals and standards	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Research	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Instructional strategies	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Differentiation	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Instructional technology	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Communication	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Connections	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Questioning	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Student misconceptions	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Assessment	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Developmentally appropriate learning opportunities	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Equity	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Use of instructional tools	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Reflection	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000
Resources	0	0.00%	0	0.00%	1	100.00%	1	1.000	1.000	0.000
Overall performance	0	0.00%	1	100.00%	0	0.00%	1	2.000	2.000	0.000



Teacher Name: **Subject:** **Grade:**

STAGE I

TITLE OF UNIT:

Enduring Understandings/Essential Questions

These are ideas, questions and goals (one or two) that frame learning throughout a unit of study.
Why are students learning the information/skills in this unit?

Focus Questions/Unit Objectives/Aim

Application of content & Skills

Content FQ/Objective (These should be listed in the order in which you plan to teach them. Each FQ/Objective should correspond to the Aim/Focus Question for each lesson.)	**Skills FQ/Objective** (These should be listed in the order in which you plan to teach them.)	**Standards Addressed (Codes)**
1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	A. B. C. D. E. F. G. H. I. J.	

Materials, Texts, Other Resources Needed

Unit Vocabulary

Key vocabulary and concepts essential to the demonstration of mastery of the content and skills taught in this unit

1. 2. 3. 4.	5. 6. 7. 8.	9. 10. 11. 12.

STAGE II

Assessments Highlights *Aligned to identified content and skills taught*				
Type	**Assessment Title**	**Content or Skills being Assessed** *Use content #s and skills letters from above. *Summative assessment should tie back to Enduring Understandings.	**Description**	**Type of *Feedback* to be given to the students**
Pre-				
FORMATIVE ASSESSMENTS: *Daily/Ongoing*				
FORMATIVE ASSESSMENTS: *Benchmark*				
FORMATIVE ASSESSMENTS: *Benchmark*				
Summative				

STAGE III

	Day 1	Day 2	Day 3	Day 4	Day 5
Lesson Topic/Focus Question					
List Instructional Activities/ Assessments (Bullet Points)					
HW					

	Day 6	Day 7	Day 8	Day 9	Day 10
Lesson Topic/Focus Question					
List Instructional Activities/ Assessments (Bullet Points)					
HW					

TCNJ Lesson Plan

Title: _____ Unit #____ Lesson #_____ Day # _____

Aim/Focus Question *Write out the Content Objective from the Unit Plan*	
Learning Objectives (SWBAT) with Standards Codes *Include the content objectives specific to the lesson, skills from the Unit Plan, and standard codes for each objective.*	**Corresponding Assessments** *Include the formative assessment or summative assessment that correspond to <u>each objective</u>.*
***Daily* Content Objectives:** 1.	**Corresponding Assessments:** 1.
Skills Objectives: 1.	**Corresponding Assessments:** 1.
Standards – *Cut and paste full standards here.*	
Student Understandings/Misunderstandings/Misconceptions *What do you anticipate your students already know going into this lesson, misunderstanding, and having misconceptions of? How does this lesson relate to students' lives/society?*	
Beginning (Do Now/Opening/Hook) *Your beginning should engage students in the material for the day and be related to the objectives above. It is good to make your beginning relevant to the students' lives and to make an overt connection between the beginning and the Aim/objectives for the day.*	
Transition *– Explicitly connect the discussion of the "Opening" to the day's "Aim" and then to the first "Activity."*	
Middle – Context/Application (Mini Lesson, Activity, Guided Practice) ***<u>1)</u>** *Balance of **instructional time** and **time for application**; **<u>2)</u> Transitions (in italics)** when moving to another topic/activity; **<u>3)</u> Clear instructions** for the students (often in a **list/outline**) that you **model** activities for the students, when needed; and **<u>4)</u> Questions** w/ anticipated answers.*	

Transition – *Explicitly connect the discussion of the last activity in the "Middle" to the "Conclusion."*

End/Conclusion of the Lesson

End each lesson together as a class to sum up the material for the day and bring the class back to the "Learning Objectives" and "Aim" for the day. (For example, an "exit slip" or another short activity that brings the lesson full circle.)

Homework

What is the students' homework to help them apply the knowledge they have learned from the day's lesson?

Question Reflection

Copy and paste the key questions written out above in the categories listed below.
(Remember, you may not have questions in all categories in every lesson.)

Knowledge Questions:
1.
2.

Application Questions:
1.
2.

Critical Thinking Questions:
1.
2.

Differentiation

For each activity requiring differentiation, outline how specific you will adapt the activity to meet the needs of each type of learner.

Struggling	**Accelerated**

Materials

List any materials you need for the lesson.

Unit Plan Project

Overview

You will develop a unit of ten lessons that you will teach in your placement classroom.

Unit Requirements

Within your unit, each of the following should be included in at least one lesson:

1. Manipulatives
2. Technology/ computer software
3. Writing component
4. A rich mathematics discussion
5. A problem solving task
6. An activity suggested by research

It is possible that one lesson may cover more than one of these requirements. For example, you might use writing in a technology rich lesson.

Phase 0 – Topic and dates – due as soon as possible

Please submit the following information:

- Your school and cooperating teacher
- The class you will be teaching and when it meets (also include if the time changes, block scheduling, etc.)
- Your unit topic and the dates you will teach it

Phase 1 – Begin Planning – due 24 hours before meeting with instructor

You should submit the Unit Plan Template with the following completed:

- Stage I: This section should be completed.
- Stage II: You should have a draft of this section.
- Stage III: You should have a Lesson Topic or Focus Question planned for each day. You might have some ideas or a draft of your instructional activities or assessments, but this does not need to be completed in full.

Phase 2 – Meet with Instructor

Set up a 30 minute meeting with your instructor to discuss your unit. The purpose of having this meeting early in your planning is to help you develop your unit, so please bring ideas and questions about your unit and content.

Phase 3 – Submit Unit and Lesson Plans – due at least 10 days before you begin teaching your unit (or when you submit it for SED 399)

Your instructor will look over the entire unit and focus on specific features, but will not be providing feedback on everything.

Submit your Unit and Lesson Plans on Canvas. All of your lesson plans should be in a single word document.

Phase 4a – Teach Unit in Your Placement and be Observed

After receiving your instructor's feedback, you should revise your unit plans before you begin teaching it. As you teach your unit, you should continue revising your lesson plans.

You will teach your unit in your placement. Your instructor will observe one of your lessons.

Phase 4b – Observation Reflection – due 1 week after your observation

After your observation, please write a reflection on your lesson. You are not limited to the following questions and you do not need to answer all of them, but you should consider them as you reflect on your lesson.

- If you were to teach this lesson again to this group of students, what would you do differently and why?
- What elements of this lesson went particularly well, and how did your pedagogical decisions lead to these results?
- Were there any pedagogical decisions you made about this lesson that you are rethinking? How are you thinking about them differently?
- Where did students have questions? How did they compare to what you anticipated?

Your reflection should be 200-400 words. Please submit this on Canvas.

Phase 5 – Revised Unit and Reflection – due 2 weeks after you finish teaching your unit

Submit your Revised Unit and Lesson Plans on Canvas. All of your lesson plans should be in a single word document. You will also submit a Unit Reflection as a separate document. Your reflection should include the following:

1. Fill out the chart for your objectives during the unit:

Objective	Evidence of students moving toward the objective	Where did students struggle?	What I would keep and change if I were to teach this unit again

2. Planning:
    a. What did you revise before teaching your unit?
    b. What did you revise during your unit? Why did you make these changes?
    c. What would you revise if you were to teach this unit again? Why?

3. For each of the following questions, consider what you included in your unit, **what you would keep** if you were to teach the unit again, and **how you might change your unit** to address each element.
    a. How did you focus on meaning?
    b. How did you develop connections (across representations, across lessons, and between specific examples and generalizations)?
    c. How did you assess students?
    d. How did you incorporate metacognition?

4. What was helpful and challenging about including the different types of instruction in your unit?

Your reflection should be no more than 2 pages for the chart and 3 pages single spaced for the other questions. (As long as you answer all of the questions, you do not need to fill 3 pages.)