



Distributed Teacher and Leader Education

Teacher Candidate Work Sample for Student Learning Science Education Program

Introduction

Educators today place a high premium on knowledge of standards and assessment and the ability to design instruction, which links them together to enhance student learning. The work sample is designed to help teacher candidates grow professionally by focusing on the complex relationship between standards, assessment and instruction and help them learn how to systematically link pedagogy and classroom practice. The work sample also provides the Science Education Program with important evidence that candidates have met our graduation standards and that they are capable of effectively applying the knowledge and skills learned at the University to promote student learning in an authentic classroom setting.

Core Elements

The basic principles underlying the work sample are that students learn best when:

- the teacher fully understands the teaching-learning context
- the teacher sets significant and challenging learning goals that address both national (NGSS and Common Core) and state standards (New York State core curricula for the sciences)
- the teacher uses pre-assessment and multiple modes of assessment that are aligned with learning goals at key points in the instructional sequence to monitor student learning and modify instruction according to student needs
- the teacher plans lessons and selects instructional strategies that take into account pre-assessment findings, learning goals, and the different abilities, resources, and needs of the students
- the teacher uses ongoing analysis of student learning to make instructional decisions
- the teacher uses assessment data to analyze student learning and provide feedback to students about student progress and achievement
- the teacher reflects upon his/her own teaching and uses insights gleaned through the process to improve student learning and promote professional growth

Each of these core elements will be addressed in the work sample.

Rubrics will be used to assess candidate work (see attached).

Teacher Candidate Work Sample for Student Learning

Science Education Program

Inadequate (1)	Meets Standards (2)	Exemplary (3)
Demonstrates lack of mastery in writing skills (grammar and spelling). <i>Poorly organized</i>	Demonstrates competent use of standard writing skills (grammar and spelling). <i>Organized</i>	Demonstrates effective use of writing skills (grammar and spelling). <i>Well organized</i>
Response to prompt in this section is superficial. Paragraphs do not contain details that address the prompt.	Response to prompt in this section shows some analysis of the required components. Paragraphs contain adequate detail that addresses the prompts.	Response to prompt in this section is clear, with extensive analysis of the required components. Paragraphs contain detail that addresses the prompts and is supported with evidence.
Response does not demonstrate insight into the material addressed. Demonstrates poor understanding of concepts.	Response demonstrates significant insight into the material addressed. Demonstrates understanding of concepts.	Response demonstrates significant insight into the material addressed. Demonstrates sophisticated understanding of concepts.
Narrative displays misconceptions of pedagogical theory.	Narrative displays adequate knowledge of pedagogical theory.	Narrative displays detailed or extensive knowledge of pedagogical theory.

Part I. The Contextual Factors – Setting for Learning

While schools may be similar with respect to the basic science courses they offer, the setting for learning varies greatly from district to district, from school to school within a particular district, and from classroom to classroom within a particular school. The more teachers know about all of these elements, the better equipped they will be to successfully address the needs of the school and its students. Using the prompts below, describe the community, the school, and the students in the classroom where the work sample unit will be taught. **Answer parts A, B, and C below.**

A. Community

Describe how the characteristics of the community may affect teaching and learning. Much of this information can be found on the State/District Report Cards that are issued yearly for each school. For this assignment, use the most recent data. District Report Cards are available on the Internet from the New York State Education Department website: <<https://reportcards.nysed.gov/>>. More detailed information about community demographics and school funding, including information on high needs districts, can be found at <<http://www.p12.nysed.gov/stateaidworkgroup>> and <www.longislandindex.org>.

Include the following as a bulleted list:

- description of the school district (where it is located, number of schools, communities included in the district, etc.)
- range of home prices in each of the communities served by the school district (suggestion: see www.CityData.com, www.zillow.com, and www.Newsday.com)
- total number of students enrolled in the district
- percentage of students classified as Special Education/504 students
- percentage of students classified as ESL, and their level of English proficiency
- racial/ethnic make up of the community
- number of students eligible for free and reduced lunch
- resources of the district and its support of education-what is the yearly budget?
 - give expenditure per pupil for general education
 - give expenditure per pupil for special education
- performance of the school on state assessments, including:
 - a) percent of high school students earning a diploma
 - b) percent of students scoring above 65 on **each** of the science Regents exams
 - c) percent of students with Mastery on **each** of the science Regents exams
 - d) percent of students scoring 3 or 4 on the 8th grade science assessment
 - e) percent of students scoring at each level on the 4th grade science assessment

B. School, Classroom, and Individual Students

- Describe the school (size, school administration organization, ability groupings, scheduling patterns, etc.). Ask your Cooperating Teacher for a copy of the Teacher or Student handbook. Make copies of the school daily schedule, discipline policies, attendance policies and school safety procedures in case of emergency. Attach these to your work sample.
- Describe the physical layout of the classroom in which you are placed, indicate whether the classroom is shared with other teachers, and describe the technology and other resources available in the classroom.
- Safety: Draw a sketch of the room. Mark the following on this “room map”. Location of the instructions to exit classroom in case of fire (and what it says), fire extinguisher, fire blanket, eye wash station, safety shower, gas shut-off valve, fume hood. (List the items that are missing in the room, if any.)
- Describe the “classroom climate”, e.g., classroom management issues and how the teacher addresses issues associated with student behavior.
- For one of the classes that you teach/observe provide the following information:

- total number of students
- gender balance
- level of course (e.g., Regents, honors, AP, etc.)
- number of periods per week that the class meets
- text book (if any) and other required resources
- number of special education/504 students (give a list of the modifications required for students in the class)
- number of students with limited English proficiency (include information about native languages spoken by these students)
- number of students receiving AIS (academic intervention services) or other support services

C. Describe how the data and characteristics presented in subsections A and B above will constrain or support instructional design and assessment within the school district and your classroom, e.g. proficiency in reading and mastery of academic skills, the socio-economic level of the community, and other relevant factors.

Name _____ Instructor _____ Date _____

Scoring Guide Part I– Contextual Factors, the Setting for Learning Rubric

A. Community	Missing	(1)	(2)	(3)
Description of the school district				
Range of home prices				
Total number of students enrolled in the district				
Percentage of students classified as Special Education/504				
Percentage of ESL students and their level of English proficiency				
Racial/ethnic makeup of the community				
Number of students eligible for free and reduced lunch				
Resources of the district and its support of education (yearly budget)				
Expenditure per pupil for general education				
Expenditure per pupil for special education				
Percent of high school students earning a diploma				
Percent of students scoring above 65 on each of the science Regents exams				
Percent of students with Mastery on each of the science Regents exams				
Percent of students scoring 3 or 4 on the 8 th grade science assessment				
Percent of students scoring at each level on the 4 th grade science assessment				
B. School, Classroom, and Individual Students	Missing	(1)	(2)	(3)
Description of the school (size, organization of school administration, ability grouping, scheduling patterns).				
Copies of discipline policies, attendance policies and school safety procedures in case of emergency				
Description of the physical layout of the classroom, whether it is shared with others, and the technology/resources in room				
Room map of safety features (x2)				
Location of instructions to exit classroom in case of fire and what it says. (This can be noted on room map)				
Description of the classroom climate and any issues relating to student behavior.				
For one of the classes that you teach/observe, provide student characteristics as outlined in last bullet of Section B.				
C. Data's Influence on Instructional Design and Assessment (x3)	Missing	(1)	(2)	(3)
Description of how the data and characteristics presented in Sections A and B will influence instructional design and assessment				
Exemplary _____ Meets Standards _____ Inadequate _____				

Comments:

Part II. Learning Goals

The most basic condition for effective instruction is that the lesson aims and instructional activities be aligned with the curriculum and the major understandings that you wish your students to acquire.

This section of the work sample is a plan for the implementation of a two-week unit of standards-based instruction. A well-designed unit will address several (3-4) main ideas, which may be addressed in different ways in the individual lessons. The plan itself should be based on one of the New York State science core curricula (chemistry, earth science, living environment, or physics). It should consist of a sequence of interrelated lessons organized around one or more Key Idea(s) and a limited number of Performance Indicators, Major Understandings, and related Process Skills. Essential questions, factual information, concepts, and the process skills necessary to address the selected elements from the core document should be included.

A. Details about the Unit of Instruction

1. Core Curriculum being addressed
2. Topic to be taught
3. Central focus – describe how students will use scientific concepts and apply scientific practices through inquiry to explain a real-world phenomenon (see glossary below).

B. New York State Standards to be addressed in the unit

Using the selected NY State core curriculum, prepare a document that correlates the following:

1. Standard 4 Key Idea(s) that are to be addressed in the unit of instruction (see Core Document) INCLUDE IDENTIFICATION # and TEXT of selected Key Idea(s).
2. Performance Indicators and Major Understandings that will be addressed in the unit INCLUDE IDENTIFICATION # and TEXT of each selected PI and MU.
4. ***For Chemistry and Physics:*** Select appropriate Process Skills Based on Standard 4 and Process Skills Based on Standards 1, 2, 6, and 7 that will be addressed in the unit.
For ES: See ES Core for Process Skills Based on Standard 1, 2, 6, and 7 and Intermediate Core Document for Process Skills Based on Standard 4 (p. 4 – 11).
For LE: See LE document Appendix A - Lab Check List. See Intermediate Core for Expanded Process Skills for Standards 1, 2, 6, and 7 and Process Skills Based on Standard 4 (p. 4 – 10).
All Disciplines: INCLUDE ID # and TEXT of selected Process Skills

C. Connections to the Next Generation Science Standards (NGSS)

(<http://www.nextgenscience.org/next-generation-science-standards>)

Give the identifier code and text of the *relevant*:

- Performance Expectation(s)
- Science and Engineering Practices
- Disciplinary Core Ideas
- Crosscutting Concepts
- Connections to the Common Core State Standards (CCSS) as listed in the NGSS document for the selected performance expectation(s)

Enter information into the Graphic Organizer for Work Sample Section II.

D. Your unit Plan: Enter all of this information within the Graphic Organizer

- 1. Main Ideas and Learning Goals:** Indicate what your students should know, understand, and be able to do at the end of this unit. [E.g., at the end of an introductory unit on cells, students should **know** cell theory; **understand** that there are many different kinds of cells that have different structures and functions; **be able to** use a microscope to identify cells and their structures.
- 2. Topic Questions** that could be used to introduce each of the main concepts in the unit. Give six questions, one for each level of Bloom's Revised Taxonomy. Place these in order from simple to complex. Identify the lesson where the question appears.
- 3. Lesson Number and Title**
- 4. Standards: Performance Indicators (PI), Major Understandings (MU), and Process Skills** (Provide ID number; text not required in graphic organizer)
- 5. Learning Objectives:** What the learner should know or be able to do (i.e., student outcomes)
- 6. Test Item Numbers from your unit exam** correlated to the objectives and content (See Part G below.)
- 7. Activities/Labs** you plan to include in the unit.

E. Connections to NGSS Science and Engineering Practices and Real World Situations - Describe how the Learning Objectives in this unit will enhance your students' ability to use the NGSS Science and Engineering Practices to develop evidence-based (see Glossary) explanations for real-world phenomena.

F. Concept Map - This can be used as an overview to introduce your unit and/or as a summary at the end.

G. Unit Exam and Scoring Guide/Rubric

Create a unit exam and accompanying scoring guide/rubric that will assess the lessons in this unit in light of the standards that are being used to develop the lessons.

Glossary:

Central Focus: A description of the important understandings and core concepts that you want students to develop within the learning segment. The central focus should go beyond a list of facts and skills or procedures, align with content standards and learning objectives, and address the subject-specific components in the learning segment. For example, the subject-specific components for secondary science are conceptual understanding, use of scientific practices during inquiry, and evidence-based argument about a scientific phenomenon. A central focus for the learning segment might be inheritance of traits. The learning segment would focus on understanding factors producing genotypes and phenotypes. The learning segment would focus on conceptual understandings of genotypes, phenotypes, dominant genes, and so on, an investigation of how relationships between genotypes are expressed in phenotypes, and an argument of how these relationships would affect distributions of phenotypes in a population.

Evidence-based argument: A claim (statement) about the phenomenon justified through the use of scientific data.

Evidence-based explanation: An evidence-based explanation of a phenomenon includes a claim (statement) about the underlying cause using scientific concepts or principle(s), consistent with scientific data.

(edTPA Handbook, September 2014; Board of Trustees of the Leland Stanford Junior University, p. 45, 46.)

Work Sample Part II – Graphic Organizer:

A. Details about the Unit of Instruction

Core Curriculum: _____

Topic: _____

Central Focus: _____

B. Connections to the New York State Standards:

Expand chart as needed. Include identifying number/letter and include full text. (Cut and paste from Core Document.)

Standard 4 Key Idea(s)	Performance Indicators
Major Understandings	
Process Skills (Standards 1, 2, 6, and 7, and/or LE/Intermediate Checklist)	
Process Skills (Standard 4 and or LE/Intermediate Lab Checklist)	

C. Connections to the Next Generation Science Standards: Give the identifier code and text of the relevant sections. Expand the chart as needed. (Cut and paste from NGSS)

Performance Expectation(s)	
Science and Engineering Practices	Disciplinary Core Ideas
Crosscutting Concepts	Connections to the Common Core State Standards (CCSS)

D. Your Unit Plan

Main Ideas and Learning Goals

Topic Questions within the unit: <i>(Give 6, one from each level of Bloom's Revised Taxonomy, from simple to complex)</i>		
Bloom's Level	Question	Lesson # and Title

Sections 3 – 7

Lesson Number and Title	Standards: PI, MU, and Process Skills (Number and letter only)	Learning Objectives	Test Item Numbers (from your unit exam)	Activities/Labs
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E. Connections within Unit to NGSS Science Engineering Scientific and Real World Situations (attach)

F. Concept Map (attach)

G. Unit Test and Scoring Rubric (attach)

Name _____ Instructor _____ Date _____

Part II – Learning Goals Rubric

A. Details about the Unit of Instruction	Missing	(1)	(2)	(3)
Core Curriculum being addressed and Topic to be taught				
Central Focus				
B. Connections to the New York State Standards	Missing	(1)	(2)	(3)
New York State Standard 4 Key Ideas that are to be addressed				
Performance Indicators that will be addressed				
Major Understandings that will be addressed				
Process Skills from Standards 1,2,6 and 7 that will be addressed				
Process Skills from Standard 4 that will be addressed				
C. Connections to the Next Generation Science Standards	Missing	(1)	(2)	(3)
Performance expectations				
Science and Engineering Practices				
Disciplinary Core Ideas				
Crosscutting Concepts				
Connections to Common Core State Standards				
D. Your unit plan	Missing	(1)	(2)	(3)
Main Ideas and Learning Goals				
Topic Questions reflecting Bloom’s Revised Taxonomy				
Ten lessons and titles				
Lesson Standards: Performance Indicators and Major Understandings				
Lesson Objectives				
Test Item Numbers				
Activities/Labs				
	Missing	(1)	(2)	(3)
E. Connections within Unit to NGSS Science Engineering Scientific and Real World Situations (x2)				
F. Concept Map				
G. Unit Exam and scoring rubric (x2)				
Exemplary: _____ Meets Standards: _____ Inadequate: _____				

Comments:

Part III. Assessment

Introduction

Well-designed assessments can improve instruction in several ways. They will guide instruction by keeping teaching focused on the learning outcomes of the unit and the standards to be addressed. Assessments are also important because they enable the teacher to see what students have and have not learned, to understand why students did or did not learn, and on the basis of this knowledge, to modify instruction accordingly. The assessment plan for the unit should correlate with the learning outcomes of the unit. It should employ multiple forms of assessment placed throughout the unit such as formative, summative and authentic assessments.

Formative assessments are typically informal and may or may not be graded, such as Do Now's, exit cards, student questions and responses to teacher questions, quizzes, feedback from clickers, or teacher observation of students as they work on a class activity. Summative assessments such as tests, lab reports, and student projects are delivered at the end of instruction and are graded. Summative assessments provide the students with an opportunity to synthesize what they have learned during the course of the unit and enable the teacher to evaluate both student learning and the effectiveness of his/her own teaching. Authentic assessments deal with a student's ability to apply content to real world situations.

The primary goal of this section of the work sample is to develop a plan for three to five lessons (learning segment) that will enable you to determine if students have met the learning objectives that were included in the lessons.

Note: In Work Sample V you will be asked to select three target students with different ability levels on the basis of a characteristic that is relevant to student achievement (e.g., language proficiency, ability level, learning style, etc.) and you will be monitoring their learning during this learning segment. At this time select the three students, all in the same class, so that you can make copies of their individual assessments throughout the unit. You should remove student names from each piece of student work and replace it with a code (A, B, or C) before you submit the papers as part of Work Sample V.

A. Assessment Plan Overview

Select a 3-5 day learning segment for your class and enter the following information into the Correlation to the Standards Chart on next page.

- **Topic, subject and grade, and level** of class taught (ex. Rocks and Minerals, Regents Earth Science, grade 9 Regents)
- **Central Focus** – an overview of what will be taught in the learning segment
- **Learning Outcomes** correlated to the key ideas, performance indicators and major understandings in the core. Learning outcomes are what you want your students to know or be able to do when they have finished the learning segment. Look carefully at the core to decide how these should be stated. Include two or three learning outcomes.

- **Correlation** to the Standard(s) Key Idea(s), Performance Indicators and Major Understandings for your particular core curriculum. You only have to list the numbers that correspond to the Key Ideas, PIs, and MUs. This will help you to make sure that you address a variety of topics and that they correlate to your learning outcomes.

Correlation to the Standards Table

Title:					
Subject and Grade Level:					
Central Focus:					
Learning Outcomes	Standard	Key Idea	Performance Indicator	Major Understanding(s)	Process Skills
<i>Text of Learning outcome</i>	4	3	3.2	3.2 b	3.2 ix
<i>Text of Learning outcome</i>					
<i>Text of Learning outcome</i>					

B. Create an assessment plan that will include each of the following types of assessments.

- 1. Pre-Assessment- determines what students do and do not know about the Learning Outcomes of the learning segment.** This should be designed in such a way that you will be able to identify the **misconceptions** that your students hold regarding the topic. This might include asking students to write what they know about the topic, or it might involve a set of carefully structured written questions. The important thing is that the pre-assessment provides a baseline of prior student knowledge as it relates to the learning goals. Include a copy of the pre-assessment with the rubric.
- 2. A lab activity/lab report.** This must be hands-on and inquiry based and not just a paper and pencil worksheet. Students should make predictions, follow an experimental procedure, collect and analyze data, and draw conclusions based on the results of the experiment. Include a copy of the lab activity/lab report assignment with the rubric.
- 3. Formative assessment.** Include **one** formative assessment, for example, Do Now, Exit Card, Word Splash or some other assessment you used in your class. Include a copy of the formative assessment with the rubric.
- 4. Final summative assessment** to be used for this learning segment. As you design this assessment, include items that will give information about student learning with respect to the learning outcomes for the unit. You will be looking for evidence that student learning has occurred as a result of your instruction. The final assessment should correlate with your pre-assessment. Include a copy of the final assessment with the rubric.

C. Final Assessment Chart: Complete the chart in this section with the following information about your final assessment:

- Learning Objectives (1 or 2 per lesson). These must include active verbs from Bloom’s revised taxonomy, and follow the rules for writing an objective: The student will be able to ... (SWBAT)
- Identify the questions from the Summative Assessment that address each objective.

- Title and Lesson Numbers
- Content and activities that develop the objective

Lesson number and Title	Learning Objectives (SWBAT)	Questions on final assessment	Content and activities that develop the objective

D. Assessments – Dealing with students with special needs

For students in your class, discuss the accommodations required for ELLs and students with IEPs or 504 plans or any other student with special needs and then describe the manner in which you will address the needed accommodations.

Name _____ Instructor _____ Date _____

Part III – Assessment Rubric

A. Assessment Plan Overview-Correlation to the Standards Chart	Missing	(1)	(2)	(3)
Topic, Subject, Grade and Level				
Central Focus				
Learning Outcomes (include 2 – 3)				
Standard, Key Ideas, Performance Indicators, Major Understandings				
B. Assessment Plan	Missing	(1)	(2)	(3)
Pre-Assessment -include a copy of the pre-assessment with a title, answers and point distribution if applicable				
Type of pre-assessment and why it was chosen				
Lab Activity/Lab Report - Include a copy of the lab activity/lab report with title, answers and point distribution				
Lab is inquiry based				
Formative Assessment - Include a copy of one formative assessment with title, answers and point distribution				
Type of formative assessment and why it was chosen				
Final Summative Assessment -include a copy of the final assessment, a scoring key and point distribution				
Quality of the assessment				
C. Final Assessment Chart	Missing	(1)	(2)	(3)
Lesson Number and Title for the Learning Objective				
Learning Objectives for each lesson				
Questions that align with each Learning Objective (give question number)				
Content and activities that develop the Learning Objective				
D. Assessment – Dealing with students with special needs (x2)	Missing	(1)	(2)	(3)
Description of accommodations required by the ELLs and/or students with IEP or 504 plans who are in your classes				
Description of how the assessments will be adapted for ELL students and/or students with special needs				
Exemplary: _____ Meets Standards: _____ Inadequate: _____				

Comments:

Part IV. Instructional Design

Design a unit of instruction (10 lessons) that will enable all of your students to achieve the standards-based learning goals identified in Work Sample Section II.

A. Submit the Strategy Chart (see p. 15) as the last page in this section of the Work Sample.

B. Unit Plan

The plan should form a coherent, connected instructional sequence from the first day until the last day of the unit and include:

1. Ten sequentially numbered lessons for the unit plan (use the assigned Lesson Plan format)
2. A minimum of five instructional strategies selected from the toolbox
3. A minimum of two laboratory investigations, one a “cookbook” lab, and one a guided inquiry lab that develops concepts and relationships from student observations, data collection, and requires drawing conclusions by analysis of the data
4. A minimum of one lesson that incorporates use of Internet, PowerPoint, Smart Board or other form of technology, e.g., data sensing probes
5. A minimum of one lesson that incorporates cooperative learning (not just group work!)
6. At least one literacy component that is addressed in the ELA common core standards
7. At least one lesson in which students are required to use mathematics as addressed in the Math Common Core standards
8. History of science in at least one lesson
9. Nature of science (NOS) in at least one lesson
10. Include at least one real world or authentic connection between the subject matter and a societal issue, community concern, personal or technological application, or current event
11. Include at least one lesson in which *students* orally assert and defend arguments/claims in science, demonstrate what they know about a concept, and convey what they have experienced or learned (to small groups or to the entire class).
12. A minimum of two homework assignments, other than those drawn from a textbook. At least one homework assignment should include choices that will address the needs associated with different learning styles, i.e., differentiation.

C. Reflection:

1. Where in the unit would you differentiate instruction for a variety of learners, such as: English Language Learners, gifted and talented, students with IEPs and 504 Plans, struggling readers, underperforming students, and those with physical disabilities? Explain your choices and give an example of possible differentiation.
2. Reflect on the process of assembling this unit plan. What did you find helpful? What did you find particularly difficult? What would you have done differently?
3. Select and support at least two instances within this unit plan where decisions about your lessons involved information that you read in scholarly literature while in Methods 1, Methods 2, and your core education courses (Foundations of Education SSE 350/CEE 505, Language and Literacy Acquisition (LIN 344/544), Human Development (PSY 327/595) and Special Education (CEF 347/547).

Work Sample Part IV - Strategy Chart

		Lesson #	Title of Lesson
1.	Toolbox Instructional Strategies 1. 2. 3. 4. 5.	Lesson Lesson Lesson Lesson Lesson	
2.	Laboratory investigation 1 (cookbook) Laboratory investigation 2 (guided inquiry)	Lesson Lesson	
3.	Technology lesson (PowerPoint, probes, etc.)	Lesson	
4.	Cooperative learning	Lesson	
5.	Literacy component	Lesson	
6.	Science/Mathematics integration	Lesson	
7.	History of Science	Lesson	
8.	Nature of Science (NOS)	Lesson	
9.	Connection to a societal issue, community concern, personal or technological application, or current event	Lesson	
10	Oral Student Presentation	Lesson	
11	Homework assignment	Lesson	
12	Homework Assignment – differentiated	Lesson	

(NOTE: A lesson may address more than one element in this chart.)

Name _____ Instructor _____ Date _____

Part IV – Instructional Design Rubric

	Missing	(1)	(2)	(3)
A. Strategy chart				
B. Ten day Unit Plan should include:	Missing	(1)	(2)	(3)
Ten sequentially numbered lessons for the unit plan, with titles				
Minimum of five instructional toolbox strategies				
“Cookbook” laboratory investigation				
Inquiry based laboratory investigation				
At least one lesson that incorporates use of some form of technology				
At least one lesson that incorporates cooperative learning				
At least one literacy component within the unit				
At least one lesson in which students are required to use mathematics				
At least one lesson addressing the history of science				
At least one lesson addressing the nature of science				
At least one real world or authentic connection to a societal issue, community concern, personal or technological application, or current event				
One lesson where students orally assert and defend arguments/claims				
One homework, other than those drawn from a textbook				
One homework that includes choices for differentiation				
C. Reflection	Missing	(1)	(2)	(3)
Discussion regarding differentiation and individualization of instruction				
Reflection on process of writing Unit Plan				
First instance where scholarly literature supported instructional decision				
Second instance where scholarly literature supported instructional decision				
Exemplary: _____ Meets Standards: _____ Inadequate: _____				

Comments:

Part V. Analysis

A. The purpose of this section is to show that teacher candidates are able to analyze student learning in order to continuously improve their own teaching. This section should be written in the context of your implemented unit plan.

1. You will monitor the learning of the three target students you selected in Work Sample section III. Label these students A, B and C. For each student indicate their grade (in school), gender, their present class average as well as the characteristic that was used to select the student, such as language proficiency, ability level, learning style, their current class average etc. Give a brief explanation of why you chose this student. **Do not identify students by name.** All three students should be in the same class.
2. Pre-Assessment:
 - Describe how the information that was gathered in the pre-assessment was used to inform instruction for your class throughout the learning segment.
 - Explain the reasoning for changes made in the initial learning segment due to pre-assessment results.
 - Include a copy of the pre-assessment paper for students A, B, and C, along with an answer key if applicable.
 - Describe what you learned about Students A, B, and C based on their pre-assessment papers.
3. Using an Inquiry Lab within this learning segment, analyze student learning for your three students that did/did not occur as a result of performing the lab.
 - Support your conclusions with evidence wherever possible.
 - Include a copy of the graded lab report for each of your three students including your feedback.
 - Use examples drawn from the students' lab reports to demonstrate the use of academic language, including discipline-specific vocabulary and argumentation, as part of the data analysis and supporting conclusion.

B. Summative Assessment.

Using test papers from the entire class from which you selected students A, B and C, perform an item analysis on the assessment that was administered at the end of the unit. Include the following information:

1. Average grade, range, and % of students who correctly answered each question. This should only be done for the multiple-choice portion of the test.
2. Identify the question(s) that had a large number of student errors.
3. Suggest some changes in instruction that will enable you to teach these concepts more effectively in the future.
4. Include copies of the graded final assessment for students A, B and C with your feedback.

C. Comparison of pre-and post assessment

Compare each of the three target students' performance on the pre-assessment and post-assessment and discuss the effectiveness of your instruction with respect to the following items:

1. Acquisition of content knowledge
2. Select one or two misconceptions that were identified in the pre-assessment and analyze whether or not the students changed their perceptions upon completion of the unit.

D. Using Assessment to Enhance Student Learning

Teachers use results of a variety of assessments to inform their instruction. Similarly, students can learn about their grasp of content and concepts by reflecting on their scores on exams and other assessments.

1. Select and describe a situation where your written feedback engaged your target students as they evaluated their own strengths and weaknesses.
2. Discuss how this feedback led to the revision of student work and/or improvement of subsequent work.

Name _____ Instructor _____ Date _____

Part V – Analysis Rubric

A. For the 3 students selected for this analysis (target students)	Missing	(1)	(2)	(3)
1. Give each student’s grade in school, gender, their present class average as well as a brief explanation to explain how each student was chosen, such as language proficiency, ability level, learning style, etc.				
Student A				
Student B				
Student C				
2. Pre-Assessment	Missing	(1)	(2)	(3)
Describe how pre-assessment informed instruction for the class				
Describe reasoning for changes made in initial learning segment due to pre-assessment				
Copy of pre-assessments for students A, B and C				
Describe what you learned about students A, B and C from pre-assessment				
3. Inquiry Lab	Missing	(1)	(2)	(3)
Analysis of student learning for your target students that did occur following the lab: Give evidence for each student.				
Analysis of student learning for your target students that did not occur following the lab. Give evidence for each student				
Copy of graded lab report for Students A, B and C with written feedback.				
Examples of student work that shows academic language, discipline-specific language, argumentation, and data analysis used to support conclusions.				
B. Summative Assessment (Final assessment for class with students A, B and C)	Missing	(1)	(2)	(3)
1. Average grade, range and % students with correct answer for M/C questions				
2. Identify questions with large number of student errors				
3. Suggested changes in instruction to remedy errors				
4. Copies of final assessment for students A, B and C with your feedback				
C. Comparison of pre and post assessment for target students	Missing	(1)	(2)	(3)
1. Compare students A, B, and C in terms of acquisition of content knowledge				
2. Compare students A, B and C as to their misconceptions and whether or not these changed upon completion of the unit				
D. Using Assessment to Enhance Student Learning (x 3)				
1. Select and describe a situation where your written feedback engaged your target students as they evaluated their own strengths and weaknesses.				
2. Discuss how this feedback led to the revision of student work and/or improvement of subsequent work.				
Exemplary: _____ Meets Standards: _____ Inadequate: _____				

Comments:

Part VI. Self Evaluation and Reflection

A. Evaluate the success of the lessons taught during the learning segment with respect to the following.

1. alignment between the learning goals (learning outcomes), instruction, and assessments
2. evaluation of how you opened and closed your lessons
3. identification of strengths and weaknesses in your lessons
4. evaluation of student engagement during the lessons
5. evaluation of the effectiveness of your questioning and discussion leadership during lessons –cite examples where you led students to higher level thinking
6. discussion of classroom management issues and the effectiveness of your responses to these issues

B. Reflecting on the analysis done in Part V, describe how teaching this sequence of lessons has promoted professional growth.

- Identify specific areas where improvement may be needed in order for you to become a more accomplished classroom teacher and explain your choice. (Some areas to consider are: learning goals, assessment, differentiation of instruction, content knowledge, teaching strategies, time management, questioning technique, etc.)
- Reflect on how the identified area in need of improvement impacted your teaching, and the experiences of your students. Suggest changes that you can implement to address this area in need of improvement.
- Identify one area in which your teaching was particularly strong. Provide evidence to support the assertion.

Name _____ Instructor _____ Date _____

Part VI – Self Evaluation and Reflection

A. Evaluation of success of the lessons with respect to:	Missing	(1)	(2)	(3)
1. Alignment between learning goals, instruction, and assessments				
2. Evaluation of how you opened and closed your lessons				
3. Identification of strengths and weaknesses in lessons				
4. Evaluation of student engagement during lessons				
5a. Evaluation of effective questioning and discussion leadership				
5b. Examples of leading students to higher level thinking				
6. Discussion of classroom management issues and effectiveness of response to these issues				
B. Reflection on Analysis in Part V	Missing	(1)	(2)	(3)
Identification of areas where improvement is needed				
Reflection on how identified weaknesses affected instruction				
Changes that could be implemented to address areas in need of improvement				
Example of when teaching was particularly strong, with supporting evidence				
Exemplary _____ Meets Standards _____ Inadequate _____				

Comments: