

Science Unit Plan Guidelines and Scoring Rubric

Using the knowledge you have gained in this course, you are to design an exemplary schoolyard action project appropriate for middle level students.

- Your unit must include the components of a good MWEE.
- Adaptations of lessons you find online or have written previously are fine, but they **must be cited** as adaptations. **Uncited work will result in failure for the assignment. The book you use must be cited in each lesson.**
- Lessons are not to be written in first person.
- Please number each page in your unit
- Include a cover sheet with the title of your unit, your name, and course number.
- Points WILL be taken off for poor grammar, spelling, and punctuation.

ACTION PLAN FORMAT – 125 points

Part I. Rationale (1 to 2 page narrative) 10 points

- What scientific content and science practices do you want your students to learn? (2 pts)
- What kinds of activities will you use to teach the scientific content and practices? (2 pts)
- How will you integrate other subject areas into your lessons? (2 pts)
- How do you plan to meet the needs of students with different talents and abilities? (2 pts)
- Why is it important for your students to know this information or to know how to use this skill? (2 pts)

Part II. Daily Lesson Plans (5) 105 points (21 points per lesson)

- Include at least 5 individual lesson plans based on the content discussed in Part I
- Follow the 5E lesson plan format.
- **Two lessons** must be science **focused** lessons.
 - One lesson must take students **outside**.
 - Subsequent lessons can tie **science together** with math, art, language arts, or social studies.
- Include any teacher created activity sheets you will use to guide students during lessons.

Part III. Assessment (1 page) 10 points

- How will you assess the material taught in the entire unit? (2 pts)
- What will the students have to do with the new information? (2 pts)
- How will you determine if the students learned the information you taught? (2 pts)
- What forms of informal assessment will you use? (2 pts)
- What kinds of checklists or rubrics will you use to assess learning? (2 pts)

SCIENCE LESSON PLAN FORMAT

Use the 5E format – including each part of the 5E model as well as items listed below.

Title

Grade Level/Subject

I. Science Topic Addressed (1 pt)

What science topic are you teaching in this lesson?

II. Rationale/Applications to Real Life (2 pts)

This is where you state your rationale for teaching the lesson. Why should the students learn what you are teaching? How does this information affect them in their everyday lives?

III. Common Core (1 pt)

Write out the entire standards and explain how your topic coordinates with these standards.

IV. NGSS - Science & Engineering Practices Addressed (1 pt)

What science and/or engineering skills will the students use to learn what you are teaching?

V. NGSS – Cross cutting Concepts (1 pt)

VI. Each Lesson Plan in the 5E format- make sure you include the following:

Objective (1 pts)

What do you expect the students to do or get from the lesson?

Materials (1 pt)

What materials are need to effectively do the lesson?

Safety (1 pt)

Are there any safety issues to address?

Description of each of the 5E steps - step by step what the students will do. Make sure you include typical questions you would ask them.

Engage (2 pts)

Explore (2 pts)

Explain (2 pts)

Elaborate (2 pts)

Evaluate (2 pts) - How will you tell if the students learned what you taught?

****Extend** – 2 extra points per lesson. What additional **activities** could you do with your students to further their knowledge on the subject matter?

Summary/Closure (1 pt)

How will you finalize the important points of your lesson?

VII. Expected Conclusion (1 pt)

What should the students observe or find out from this lesson? What are some possible outcomes if your activity is an open-ended one with many correct answers? This is where you convince me you know the science you are teaching.