

Lesson Plan

Choose a topic in the area of elementary science and develop a full lesson plan (**follow the lesson plan format included in the syllabus**) to be presented in class. If possible, tie your lesson plan and presentation into your practicum work. In that your lesson may be beyond 20 minutes in length—your presentation may be a detailed discussion *about your lesson. The planning; the materials; special features.* You will have 20 - 30 minutes for your presentation. You may teach your lesson with the class acting as your students. Plan ahead, you may not read it verbatim at the time of your presentation (consider using Power Point or overheads). Be sure to have copies of your lesson plan for the instructor and an electronic copy for inclusion on the course CD.

A sign-up-sheet for dates of presentations will be made available

Suggestions: Write for a person of your intelligence. Have someone read and critique your materials prior to your presentation. Ideas for your presentation can come from books (elementary science textbooks), journals (Science and Children), websites, and practicing elementary teachers. **DO NOT COPY DIRECTLY FROM ANY SOURCE. Cite all references that you have used.**

FORMAT FOR LESSON PLAN

Your lesson plan must be so detailed that another reader can determine exactly what you are doing and what your students are doing throughout the, class period. You need to include every example (and answer) that you intend to use, and every question (and answer) that you intend-to ask. You need to describe clearly how students are to do an activity, and if students are in groups, what every group member will be doing. If you plan to hold a discussion, include the major points you want to make. If you want students to follow a worksheet, include it, along with the answers. WHY all the detail? Because otherwise, a reader (another teacher) will not be able to determine and perform the activities stated in the lesson plan. Make sure your activities, examples and questions are appropriate for teaching the math or science content to children at the specified grade level. **Use the following format for developing a lesson plan:**

Cover Sheet:

- Title of lesson
- Grade level
- Assignment title or number
- Name

Introduction:

- A statement of the overarching concept and knowledge to be presented;
- Brief prerequisite knowledge presenting the science content around which the lesson plan is organized.

Objectives(s):

Educational objective must contain 3 components: (1) what is to be learned (content/skill); (2) by what means the child will learn and (3) must indicate how will it be assessed.

Standards/Benchmarks:

- National Council of Teachers of Mathematics (NCTM)
- National Science Education Standards (NSES)
- Pennsylvania Academic Science and Technology Standards

Procedure (How you are going to do it?):

List of all materials

- What will student/pair of students/groups of students need
- What will the teacher need?

Introduction/motivation

- Content motivation (relation to real life situation)
- Assess previous student knowledge (KWL Chart)
- Question or problem to be worked on during lesson
- Development of student hypothesis
- Connections to other subject areas and to previous day's and future day's content

Detailed Step-by-Step description of what will happen during the lesson: This section can be written as a numbered list or as a set of paragraphs. This section must include the following.

- A detailed description of what you will be doing and what the students are going to be doing during each activity (This would equate to the experimental design using the scientific method). A reader should be able to determine exactly what is going on-what the teacher is doing and what the students are doing at all times.
 - The exact problems you are going to use or questions you are going to ask (with answers). Include all appropriate materials (e.g., activity sheets) as attachments (number them in order of appearance such as attachment #1, #2 etc.)
 - The connections between each activity.
 - The amount of time you think each activity will take. Remember, a good lesson plan has several activities. Recall that most children have a 5-7 minute attention span. You want the children to be actively engaged in the activity.
 - Include at least one extension or enrichment activity that could be used if you have time left over.
- **Closure**

- A description/activity of how you will end the lesson. How will you summarize the lesson for students (again include any worksheets etc. as attachments).
- Please Note: It is not acceptable to say, "I will explain the mathematical or scientific importance of this topic." Instead, write down what you will explain "The mathematical importance of this topic is...." Likewise, it is not acceptable to write, "I will give/show students three examples." Instead, write down exactly what examples you plan to use. Be sure to include the answers. Additionally, it is not acceptable to write "I will be sure students understand before moving on" or "I will review". Instead, write down how you plan to determine whether students understand, or do not understand. What will you see children doing or writing, or what will you hear children saying?

Evaluation (How are you going to know if you have done it?)

- How do you know what students learned?
- This section must include:
 - Strategies you will use to assess whether students have met your objective(s).
 - If you are formally assessing with a quiz, test, or worksheet, include it here. Be sure to give credit if you adapted this assessment from another source.

Follow-up

Prepare an assignment that will provide the student with an opportunity to use or review the concept/skill you taught in this lesson (include any relevant attachments).

Bibliography

List all sources that you used to prepare this lesson.