5 E lesson plan components: Grade Level: Time Allotment:

Background and Learning Context:

Where does this lesson fall in the big picture of a unit? What should students know before they do this lesson? What grade level? What other subject are you integrating with the science topic? Etc.

North Carolina Essential Science Objective (be specific)

Student objective: What do you want the student to be able to do after this lesson? This objective must be <u>measureable</u>. Use action verbs such as identify, define, compare, contrast, describe, model, etc. Avoid using words such as understand, learn, or know to begin your objectives. Begin the objective with: *Students will be able to...*

Instructional Materials: Safety Precautions: Assessments and Rubrics:

- A very **detailed** 5 E lesson plan including probing questions through each section. Write the details as if you were going to give this lesson plan to someone else to teach.
 - ENGAGE Raise questions and elicit responses from students to give you an idea of what they already know. Engage the students on the topic of the lesson through use of demonstrations, discrepant events, literature, videos, etc.
 - **EXPLORE** Opportunities for students to work (usually hands-on) without direct instruction from the teacher; Students test predictions and try alternatives. The exploration must be tailored to grade/ability level.
 - EXPLAIN Encourage students to explain concepts in their own words; Students should use observations and recordings in their explanations; Ask for evidence and clarification of explanations. This section could consist of class discussion with some direct instruction from the teacher to clarify any concepts. Give a few examples of questions to use.
 - ELABORATE (EXTEND) Apply concepts in new (but similar) situations; Remind students of alternative explanations and to consider existing data and evidence as they explore new situations
 - EVALUATE Can take place throughout the lesson; Observe students' knowledge and skills application to new concepts and a change in thinking; Ask open-ended questions and look for answers that use observation, evidence, and previously accepted explanations. Assessment of student learning.
 - Rubrics for assessments or students products
 - List of resources: books, handouts, videos, websites