Learning Cycle Lesson Plan Format

*The learning cycle **lesson plan** should contain the following sections.*

Lesson Activities:

1. **Exploration Phase**
    a. recall and relate prior knowledge to the new lesson idea and/or inquiry skill by focusing students attention on experiences making observations and collecting data.
    b. respond to a "key" open question involving them in an attempting to actively apply (try out) the new science idea or inquiry skill
    c. make public their prior knowledge related to the new science idea and/or inquiry skill.
    d. confront their prior knowledge with the new science idea and/or inquiry skill.

    Introduction to Lesson
    Procedure: Student Activities Which:
    Respond to the Key Question and Focus Student Attention
    Bring out What Students Know
    Relate Previous Learning to New Learning and Confront Prior Knowledge
    Evaluation
2. **Invention Phase**
    a. discuss the results of the Exploration activity, providing connections to the new science idea or skill that is the focus of the lesson.
    b. explain the new idea or skill, describe it in context, how to use it, when it is used, the purpose it is used for, and/or how to know when it is used appropriately.
    c. practice clear examples or model the new idea or skill.
    d. provide closure for the new idea or skill, describing the steps necessary to use it appropriately.

    Procedure: Teacher/Students Activities Which
    Provide Explanations
    Provide Examples
    Provide Closure
    Evaluation
3. **Expansion Phase**
    a. practice activities for the new idea or skill in interesting examples, not repetitive practice.
    b. apply the new idea or skill in several new and relevant contexts.
    c. transfer the new science idea or inquiry skill to increasingly real world events.
    d. provide a learning summary of the development of the new science idea or inquiry skill in the completed lesson.

    Procedure: Students Activities Which:
    Involve Practice
    Provide Application and Transfer
    Lesson Summary
    Evaluation