Anatomy of a Lesson Plan

I. Learning Goals

• What do you want the students to learn from the lesson?
  (e.g. to persist through confusion, the structure of the brain, what scientists do in
the lab, to observe and describe states of matter, to analyze data, to
compare/contrast, to formulate questions)
• How do you want them to learn these things?
  (e.g. hands-on challenge/activity, designing and conducting an experiment,
discussing their ideas with others, reading, lecture)

II. Teaching Strategies

• What specific teaching strategies would you use in the lesson?
  (e.g. brainstorming, students talking about their ideas, students working in groups,
wait time, assigning roles to students, answering questions with questions)
• What will students and teachers be doing during the lesson?
  (e.g. talking, hypothesizing, doing, asking questions, answering questions)

III. Materials Management

• How will materials be prepared and managed in the classroom?
  (e.g. when and how will students/groups get and return materials, what exactly
will each student/group receive, will students/groups be working with same or
different materials)
• How will the classroom be set up?
  (e.g. number and arrangement of tables/chairs, sinks, outlets)
• What are potential problems that may arise during the lesson?
  (e.g. running out of materials, broken materials, safety issues)

IV. Time Management

• How long will it take the students to do the task? (easy to underestimate!)
  (e.g. for brainstorm, for getting materials, for doing activity, for discussing)
• What alternate plans do you have if the students need less or more time?
  (e.g. additional questions/challenges for students, reduce complexity of activity,
extend time)
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V. **Classroom & Student Management**

- **How will you organize the students during the activity?**
  (e.g. individual work, pairs, groups of three or more with assigned roles)

- **What techniques will you use to keep the students on task?**
  (e.g. time limits, guiding questions, competitive vs. non-competitive challenges, student-led discussion at end)

- **What are potential trouble spots?**
  (e.g. equity issues in discussion or access to materials, group work issues, different skill levels, transitions between lesson parts, student confusion, handing out and collecting materials)

VI. **Assessment of Student Learning**

- **What techniques could you use to assess what the students already know?**
  (e.g. brainstorm, warm-up activity, what do you know, what do you want to know)

- **What techniques could you use to assess what the students have learned?**
  (e.g. group discussion, collecting student work, written reports, a follow-up activity)