Designing a Classroom-integrated Research Project

For incorporating a research project into the class curriculum, the teacher may choose how to accomplish this in a way that best enables students to deepen their science knowledge. However, here is a list of suggested criteria for designing the activity:

1. **The student chooses his or her own research topic.** Many students may experience difficulty deciding on a topic. In this case, the teacher can help in formulating possible ideas, but the final topic must be appealing to the student on a somewhat personal level.

2. **Research should be done individually or in very limited groups.** If a group becomes too large, then work may not be distributed evenly, or a student may end up “along for the ride.” By keeping numbers small, it helps to ensure that the topic is of particular interest to those researching it.

3. **Other activities in the classroom should be in preparation for the final project.** Students should already have ample exposure to credible sources and mini-projects to ease them into a research project. Also, if students give a final oral presentation (recommended), then students should feel at ease presenting to their peers. Short activities promoting class interaction, group discussion and communication can help with this task.

4. **Students start working on the research project at the beginning of the school year.** The students will most likely not have the information or skills to start planning and performing testing, but they are capable to begin formulating questions. As the class progresses, the students will be able to develop their ideas even more.

5. **Provide a timeline of “check-ups.”** Periodic checks with students’ projects allow the teacher to recognize where help is needed. Furthermore, students may feel stress levels decrease later in the project timeline by requiring different parts finished over time.

These same criteria could be applied to research projects done in an extracurricular club, assuming that the club meets regularly.