**Plan Ahead for Lab Waste Disposal for this fall**

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**Plan Ahead for Lab Waste Disposal**

**1. Start with the End in Mind**  
Good advice to follow when beginning any experiment or lab activity is to *start with the end in mind*. Whether you’re planning your own research, or labs for hundreds of undergrads, it’s important to make preparations to safely and economically handle the laboratory waste that will be created.

First, you should evaluate activities and experiments to determine what chemicals will be used and what waste may be generated. Then, based on the degree of hazard or disposal, you can decide whether or not to proceed. Or if possible, perhaps you can redesign the experiment using [Green Chemistry principles](https://www.flinnsci.com/Green-Chemistry-Principles/Green-Chemistry-Principles/) to reduce the use and generation of hazardous waste.

If your institution has a Department of Environmental Health and Safety (EHS), please review their policies regarding hazardous material waste. They may have guidelines concerning labeling, segregating and managing hazardous waste generated by your department.

**2. Disposal Containers**  
You will need different waste containers in your laboratory depending on the categories of waste generated by an experiment. Disposal containers should be clearly labeled and appropriate for their designated contents. Here are some examples of disposal containers your labs may require:

|  |  |
| --- | --- |
| – Organic Waste | – Sharps/Biohazards |
| – Inorganic Waste | – Preserved Material Waste |
| – Halogenated Solvents |  |
| – Chemically Contamination Waste (gloves, broken glassware, paper towels) |  |

**Container Tips**  
Here are some ideas to help ensure that disposal containers are safely used:

**Location.** Place containers in safe and convenient spots. Keep aisles clear, especially aisles that provide access to safety equipment and exits. One of my colleagues at Flinn recalls a school lab in which the regular trash container was near the sink and the chemical-contaminated trash container (for used gloves) was at the other end of the lab. As a result, students would throw their gloves in the regular trash because it was close to the sink where they would wash their hands after lab. Placing the contaminated trash container near the sink solved the problem.

**Capacity.** Don’t over fill waste containers. Remind students and staff to only fill disposal containers approximately 2/3 full, so containers can be safely transported, emptied or sealed without spillage.

**Secondary Containment.** Have secondary containment such as plastic tubs for all waste containers.

**3. Lab Construction Considerations**  
If your institution is going to build a new lab or renovate an existing lab, you should evaluate your disposal requirements and design the new facility to accommodate your needs. Here are some factors to consider:

– Do you anticipate generating enough waste to require a designated area for hazardous waste collection?

– Is the area large enough to handle all categories and quantities of waste that will be generated by your department?

– Will any waste be generated that should be kept in a well-ventilated area?

– Can the waste disposal area safely and securely store the waste until a waste disposal company or your EHS department collects it?

More lab design information is available from the [Lab Design Specialists at Flinn](https://www.flinnsci.com/flinn-freebies/lab-design-guide/).

Starting each lab with the eventual disposal requirements in mind will help you create a safe and convenient lab experience for you, your colleagues and students.



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