

Calisto Betti(MGE), Olivia Brown(BME), Emily Deptula(ECE), Sarah Francis(BME),
Megan Letendre(CS), Elise Nerden(CS), Matthew Zoner(ME)
Advisors: Professor Svetlana Nikitina, Professor Diran Apelian

Problem Statement



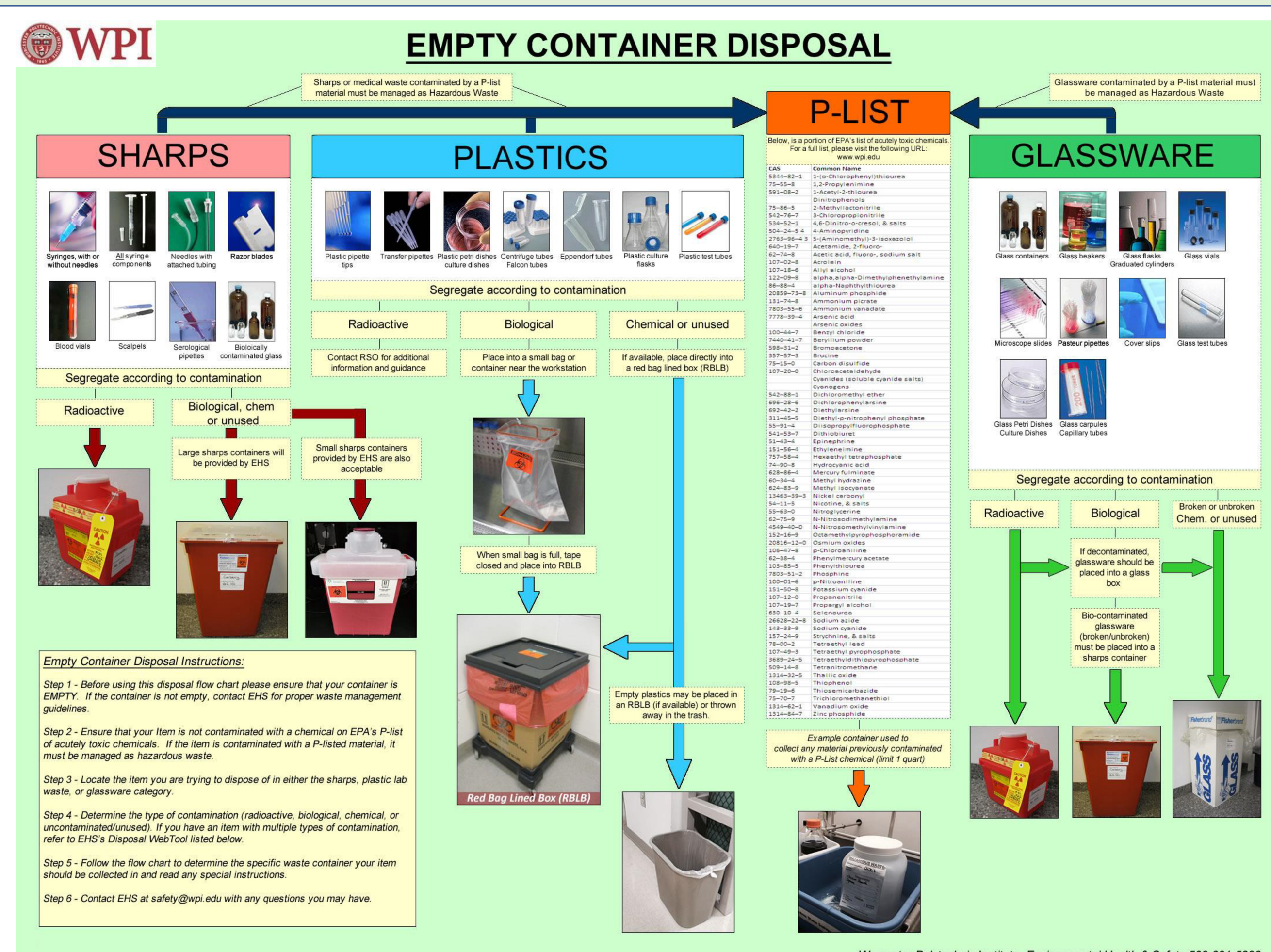
Plastics are used in Bio-labs due to their convenience. However, all plastics both contaminated and noncontaminated are disposed of in the same receptacle. This creates more plastic waste than necessary.

Project Goal

Create a convenient system which provides easy to read information that will aid lab personnel in separating their plastics in a sustainable manner while maintaining lab efficiency. This system is meant to benefit both academic and commercial labs and aid them in reducing plastic waste.



Available Solutions



EMPTY CONTAINER DISPOSAL

SHARPS

PLASTICS

GLASSWARE

P-LIST

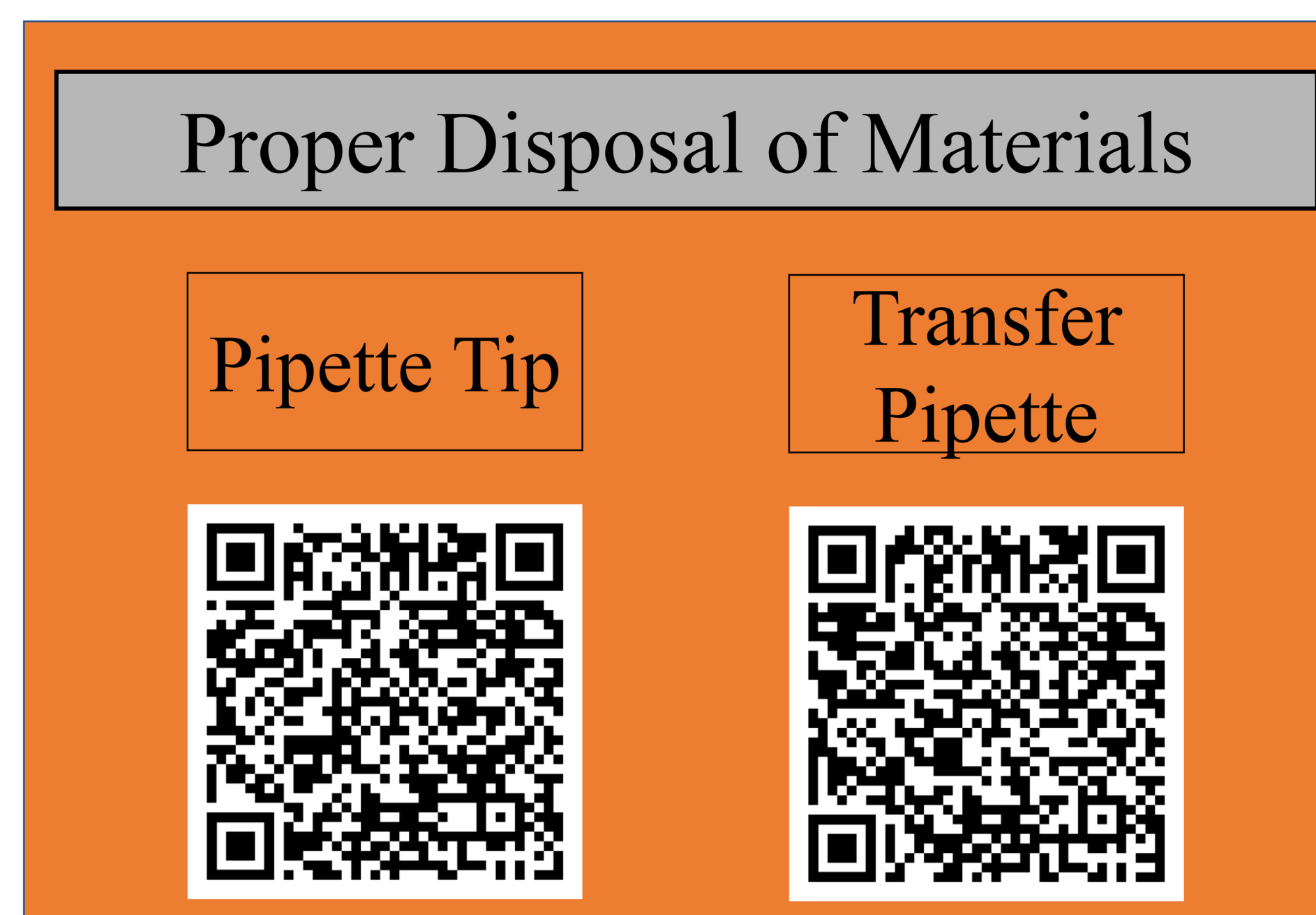
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This poster was created to guide users towards the correct disposal of lab waste and is clear and effective.

With this as a foundation, a system that utilizes smart-technology was created to streamline the reading process, and take into account human habits.

Our Developments

QR Code Poster



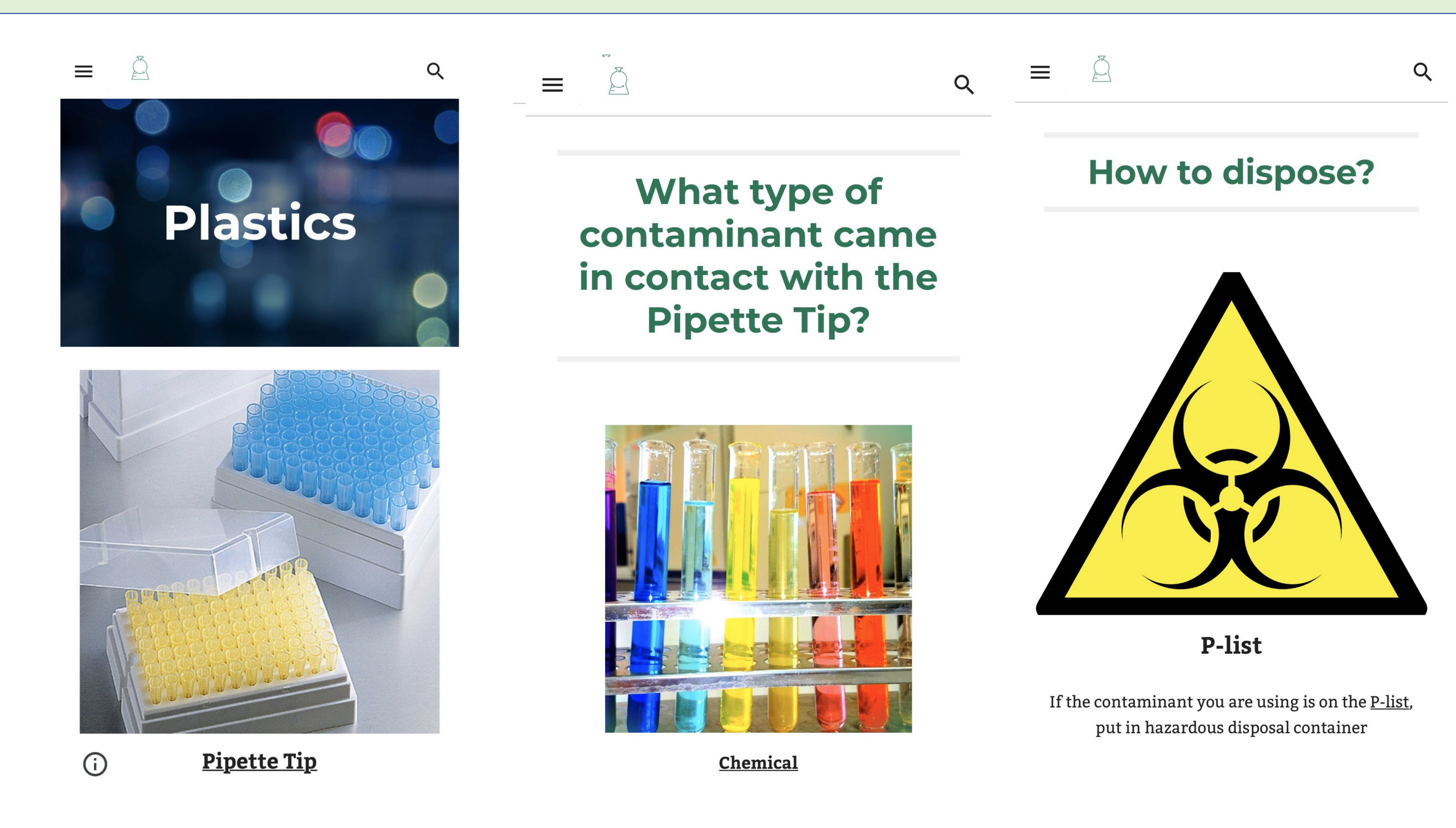
Proper Disposal of Materials

Pipette Tip

Transfer Pipette

A sheet of QR codes will be placed around the labs, allowing easy access for all the lab personnel. The user will scan the code, corresponding with the material being used, and then be redirected to the correct webpage.

Website



Plastics

What type of contaminant came in contact with the Pipette Tip?

How to dispose?

Pipette Tip

Chemical

P-list

If the contaminant you are using is on the P-list, put in hazardous disposal container

Future Project Idea

Future teams can further expand upon this system through the development of a sanitation protocol. The best way to ensure that recycling companies will collect laboratory waste is to develop a sanitation system that disinfects lab plastics completely. This system will likely consist of a 24-hour soak in a disinfectant, followed by a rinse, and then separation by plastic type. This allows for plastics to be recycled by a mainstream waste management company.

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