

STEM the Flow Engineering Challenge

Douglas Academy



Team: Drowning in Plastic
Project: Fishing for Plastic

“The River Clyde in Glasgow city centre is a very important location where we can capture and remove plastic pollution before it gets washed out.”



AIMS AND OBJECTIVES

Create a solution to collect and remove plastic from the bottom of the River Clyde. We want to raise awareness, gather evidence, change behaviour, inspire action and get young people involved.



OUTCOMES

We decided to design nets attached to some of the bridges along the Clyde to collect plastic as the current moves downstream. They would be at the side so as not to block boats.

We decided to also design a remote controlled robotic fish that would collect plastic.

We thought too about a boat that would collect plastic pollution with a net.



RESEARCH

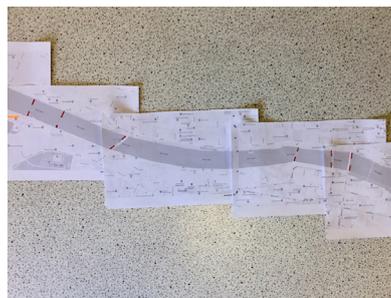
We researched different types of plastic and how they would get into the river. We collected data about plastic entering the Clyde and how much is thrown away.

We researched the best materials for building that would be durable and wouldn't corrode under water.

We thought about fishing and how we could use this to remove plastic from the Clyde. We thought about nets and how they would be attached to bridges, work with the tide and what they would be made of.

We designed an app that would allow people to 'book' the fish.

We built a model and produced a display to showcase our ideas.



FINAL DESIGN

We settled on 3 designs; a robotic fish, a boat and nets connected to bridges. The fish would be made of titanium and be connected to an app. We hope this will encourage young people to get involved. The boat would collect plastic whilst giving people a tour of the project. The net would collect floating plastic but would not harm animals.



“Our solution will make more people aware of the problem of plastic pollution. ‘Fishing for plastic’ will make it fun and interesting for young people to get involved and help clean up the Clyde. We think ‘fishing for plastic’ will even help change people’s behaviour so they drop less litter and use less plastic.”

Drowning in Plastic Team, Douglas Academy