

Great Pacific Garbage Patch

Use your coding skills to create a solution that can clean up The Great Garbage Patch.



INTRODUCTION

The Great Pacific Garbage Patch, also known as the Pacific Trash Vortex, is a large collection of plastic and floating trash. The trash is primarily fingernail size or smaller pieces of trash, filled with much smaller particles known as microplastics. The most recent research shows that it covers 2.6 million square kilometres of the ocean (approximately the size of Western Australia) with some of the garbage estimated to be over 50 years old.



What you will do

- Create a project for a given audience
- Create a project that shares information about one of today's biggest problems

Moonhack Certificate

Finished the project? Download a certificate of completion [here](#).

What you will need

Hardware and software appropriate for your selected coding language.

Scratch Starter Project

If you are using Scratch use this link to open a Scratch project full of Moonhack sprites that you can use.

<https://scratch.mit.edu/projects/1047446439/>

Additional notes for educators

[Check out our blog post for this project with tips, curriculum and supporting material at medium.com/@codeclubau](#)

[Download the project planning sheet to support your coders.](#)

STEP 1 - PLANNING

The aim of your project is to teach other people about the Great Pacific Garbage Patch. Your project may share ways to clean up the garbage or teach people how to prevent making the Garbage Patch bigger. Read through the information below and use the planning sheet to guide your work.



To build a project about this topic you need to understand what the Great Pacific Garbage Patch is and why it is a problem. Here are some links to help you do this research -

- [South Pacific garbage patch facts for kids](#) by Kiddle Encyclopedia
- [Ocean Rubbish](#) by BTN - Behind the News
- [Great Pacific Garbage Patch?](#) by National Geographic Education



What type of project will you make?

Scratch	HTML & CSS	Micro:Bit	Unity
Python	MakeCode	Scratch Jr	Other?



Why are you making this project?

Think about the purpose of creating this project. It could be:

- to create a new way to clean up the Great Garbage Patch
- to encourage everyone to do their part to prevent this from getting worse
- to share how we can do things to care for the ocean and its animals
- to share information and create awareness
- to gamify the information



Who are you making this project for?

Think about your audience. It could be:

- young children
- primary school children learning about the environment
- teenagers
- adults



Project Brief

By now you should have some great ideas forming.

Your project should

- share information about the Great Garbage Patch
- be interactive
- be original

Your project could

- have speech or sound effects
- have imported sprites and backgrounds (must be copyright free)
- have multiple levels or components

Project Planner

Name: _____

Title : _____

Purpose

Audience

Interface

☐

Original content

☐

Content permission

☐

Notes

Sprites

Stage

Ideas

Reflection:

Go through the checklist below. Reflect on your process, what you have learned, and if you met the design brief.

- ☐ Shares information about the Great Pacific Garbage Patch
- ☐ Interactive
- ☐ Engaging
- ☐ My own idea
- ☐ Suitable for my chosen audience
- ☐ Working project - no errors in code
- ☐ All imported sprites and backgrounds are copyright free
- ☐ I learned new coding skills
- ☐ I debugged problems in my code
- ☐ I am proud of my project

What I want to improve on or would do differently next time.

Congratulations! You're a Moonhack changemaker. We look forward to your sharing your completed project with us. Just ask an adult for help.

Don't forget to talk to an adult about registering your participation and downloading your certificate at moonhack.com

