

Section #2 Plan

Outreach Activity: *Neuron Safari*

Virtual Fieldwork: *Project Millport*

Breakout Rooms: *How could you use Minecraft in your Discipline?*

Neuron Safari

(www.neuronsafari.com)

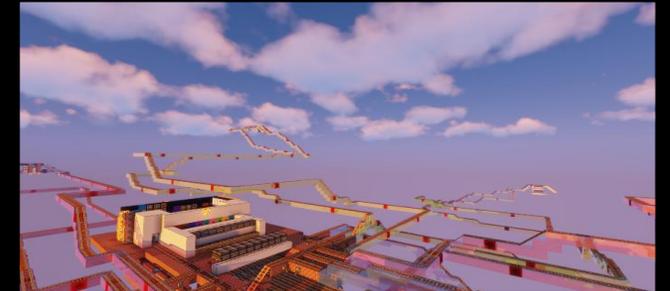
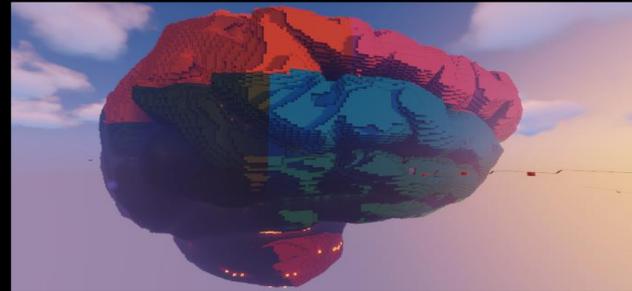
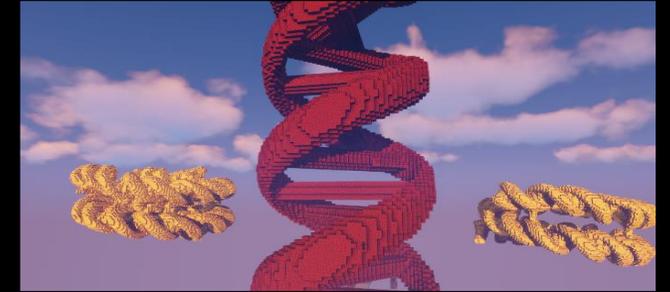
Introducing Neuroscience using
Minecraft

Edinburgh Science Festival 2020:

Target audience 7 – 12 years

Incorporates data from various
databases (NeuroMorpho, NIH,
UniProt)

Modular and scalable resource



Neuron Safari (www.neuronsafari.com)



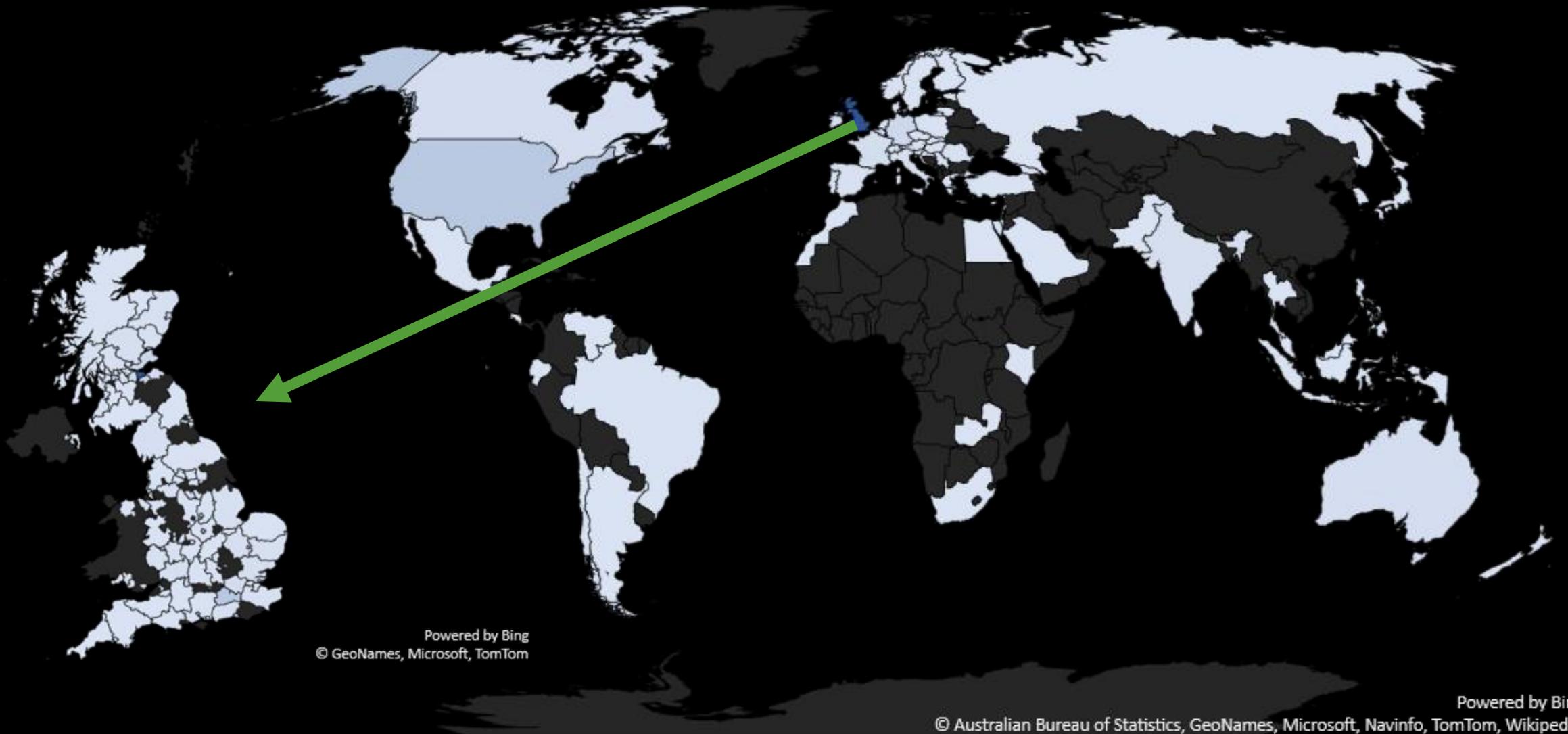
Packed in-person trial @ Leith Labs in January 2020

~1500 unique web visitors to date

Top 5 UoE-provided activity at #EdSciFest2020

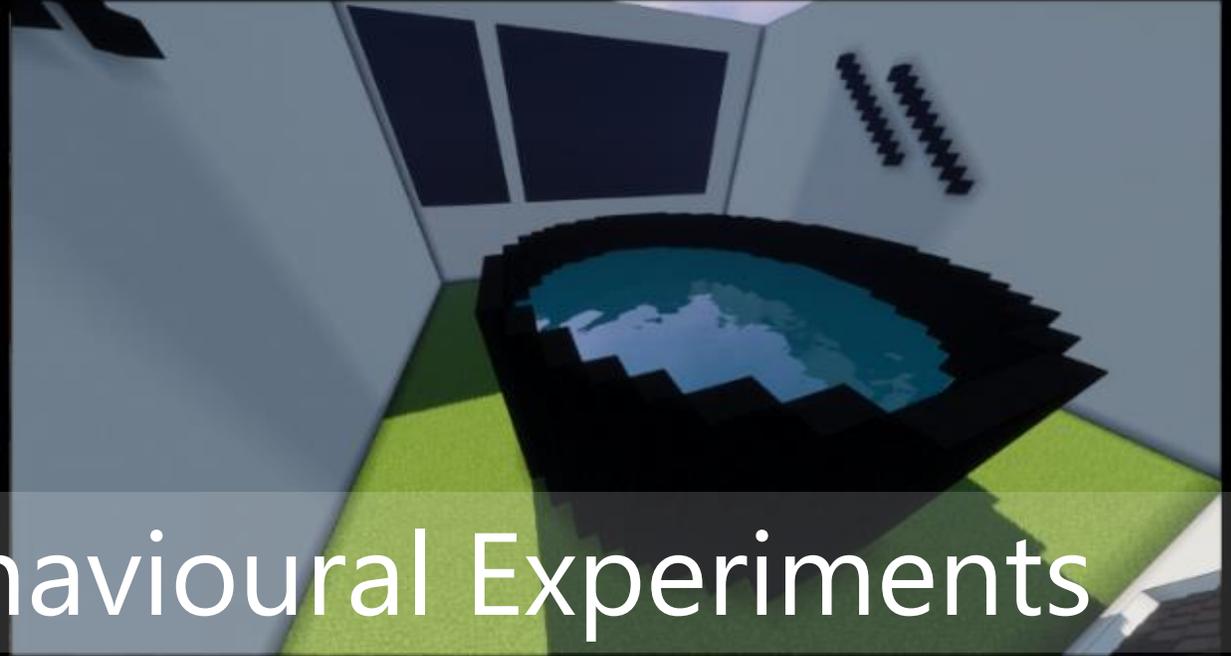
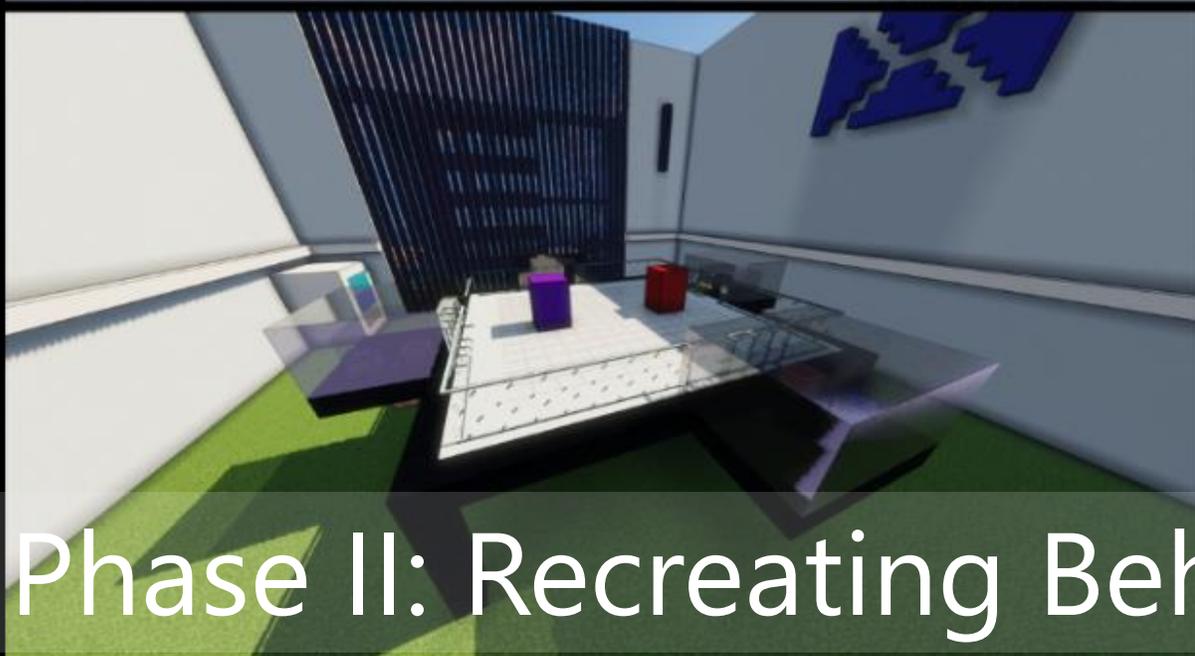
Poster at FENS 2020 in the top 10% most viewed





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Phase II: Recreating Behavioural Experiments

[Potential Streaming Point]

Virtual Fieldwork for Zoology Students



THE UNIVERSITY of EDINBURGH
School of Biological Sciences



PROJECT :

MILLPORT

Richard Fitzpatrick & Tom Little

Aims

Recreate as much of the fieldwork "experience" as possible

Allow students to collect data in different ways with minimal constraints

Generate an immersive and intuitive environment that is student and staff friendly

Virtual Fieldwork Island

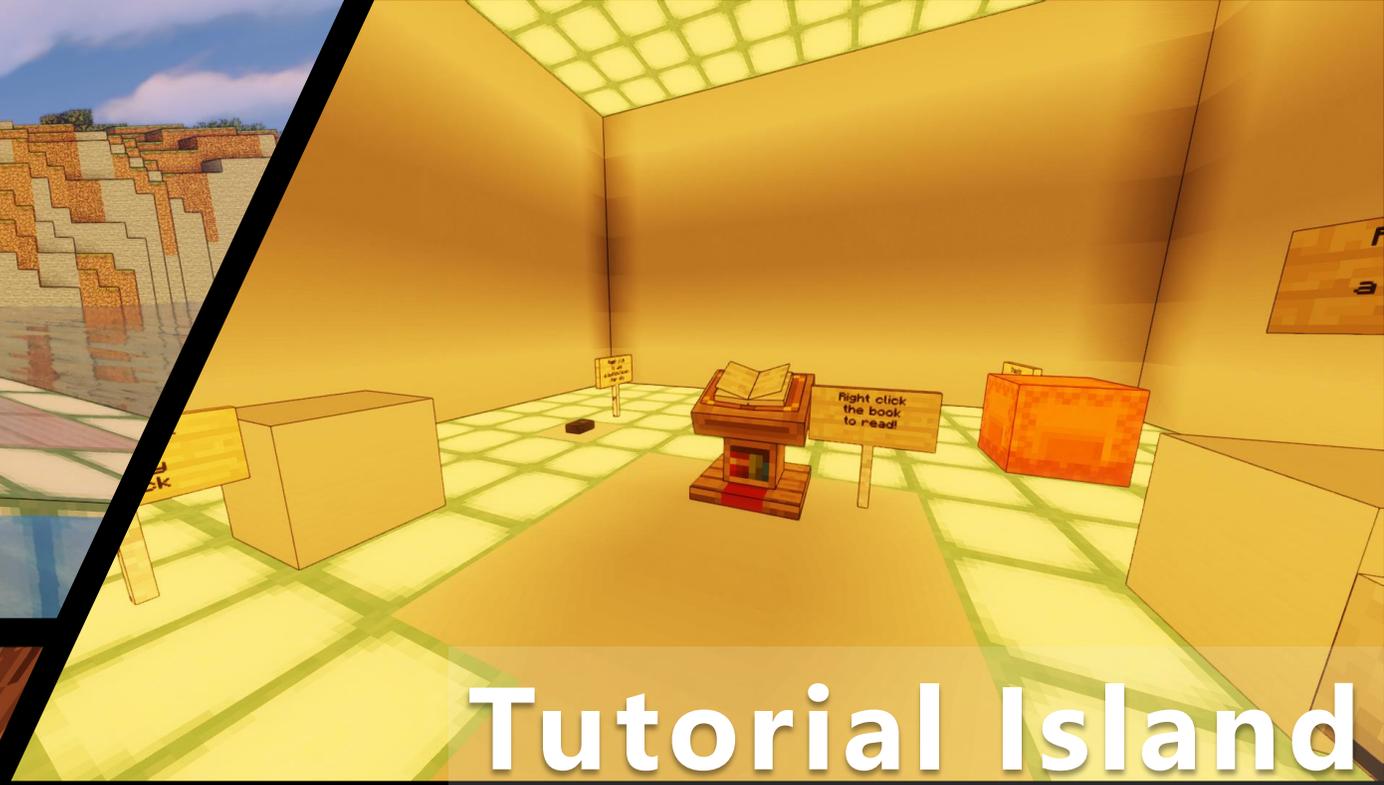
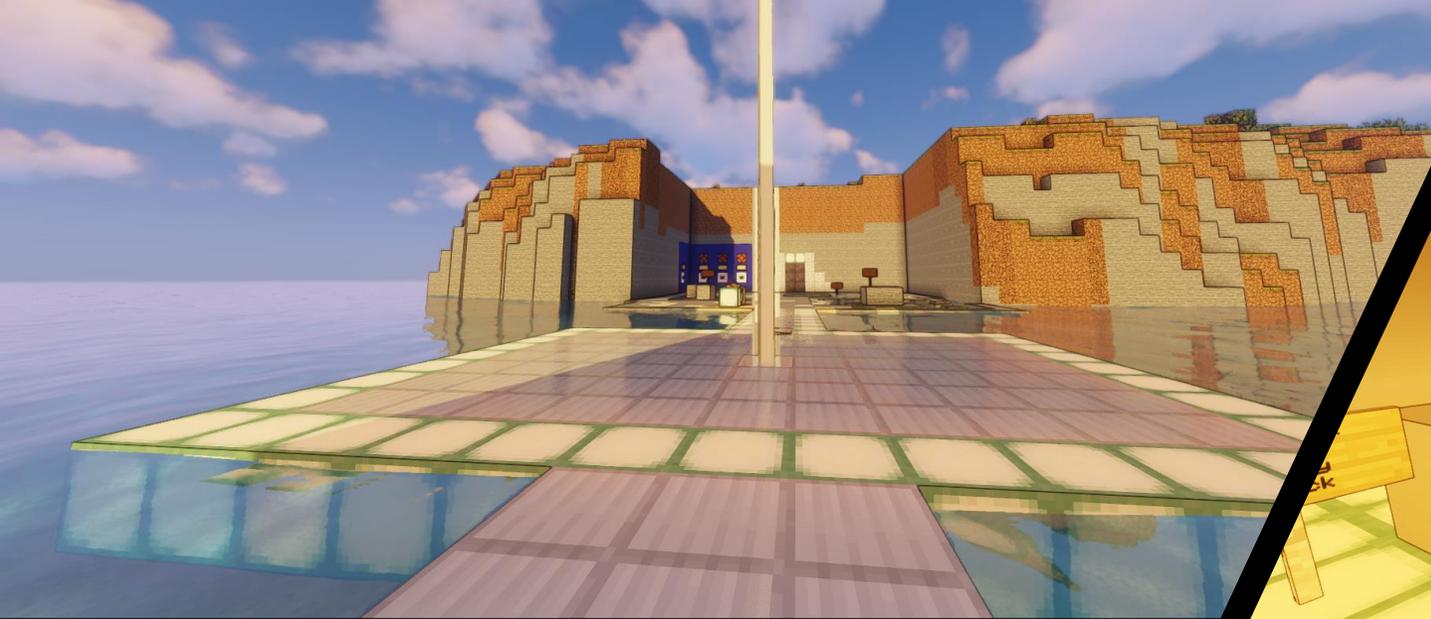
1:25 scale (xz)
1:5 scale (y)

- Real-world data via QGIS
- Converted through EarthTiles program into a Minecraft world file

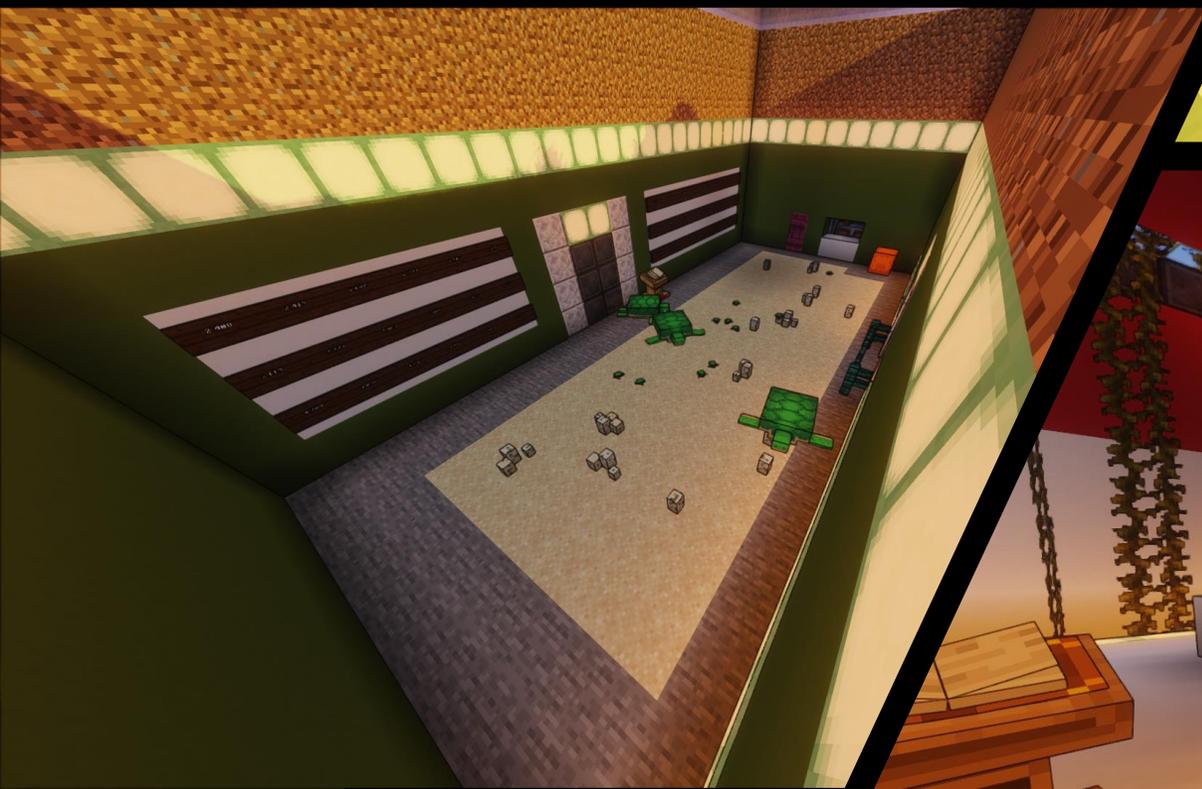


- UoE hosted server (whitelist users)
- All students provided with a copy of Minecraft

Minecraft Version: Java Edition (1.16.5)
Main Mods Used: WorldEdit; Optifine
Time Taken to build: >300 hrs



Tutorial Island



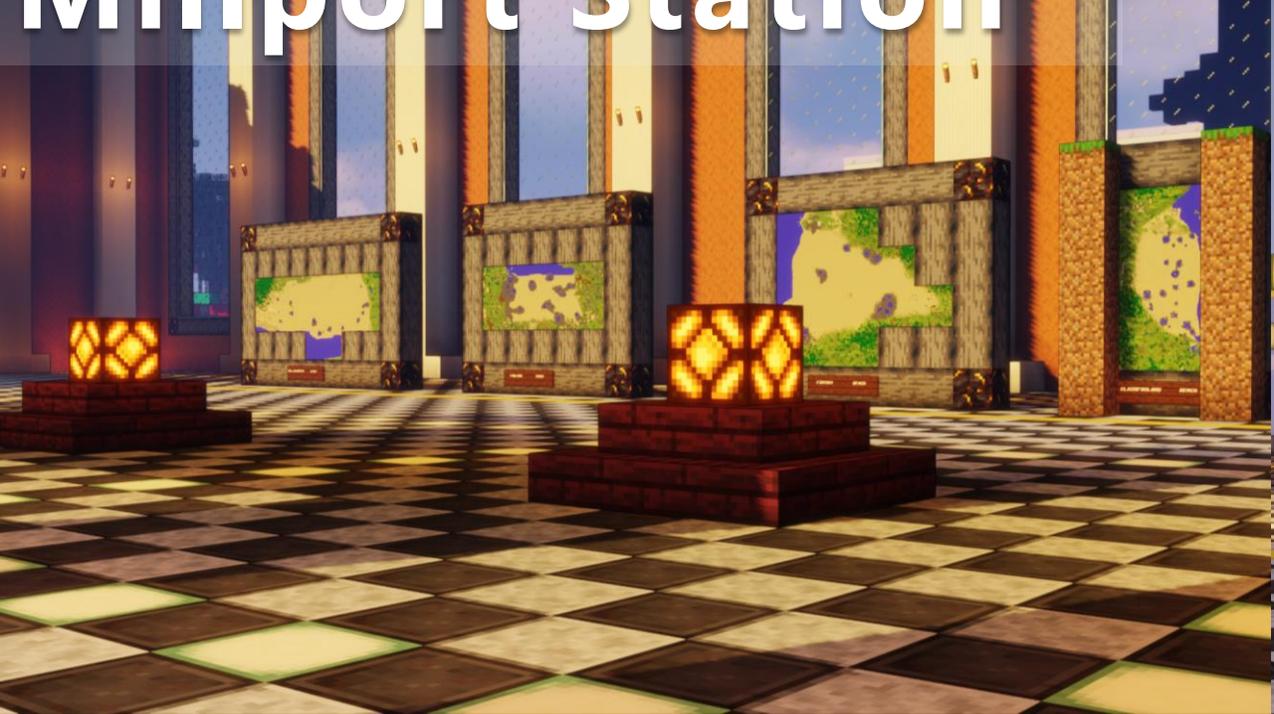


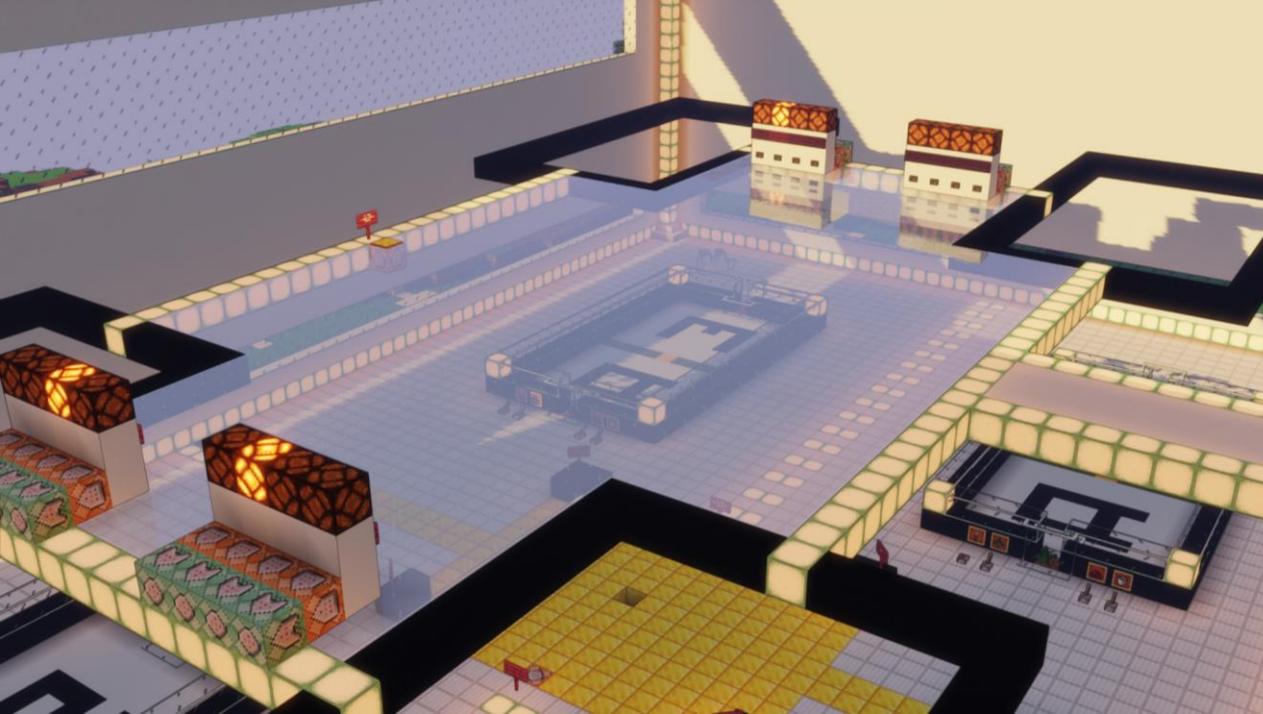
Millport Homages





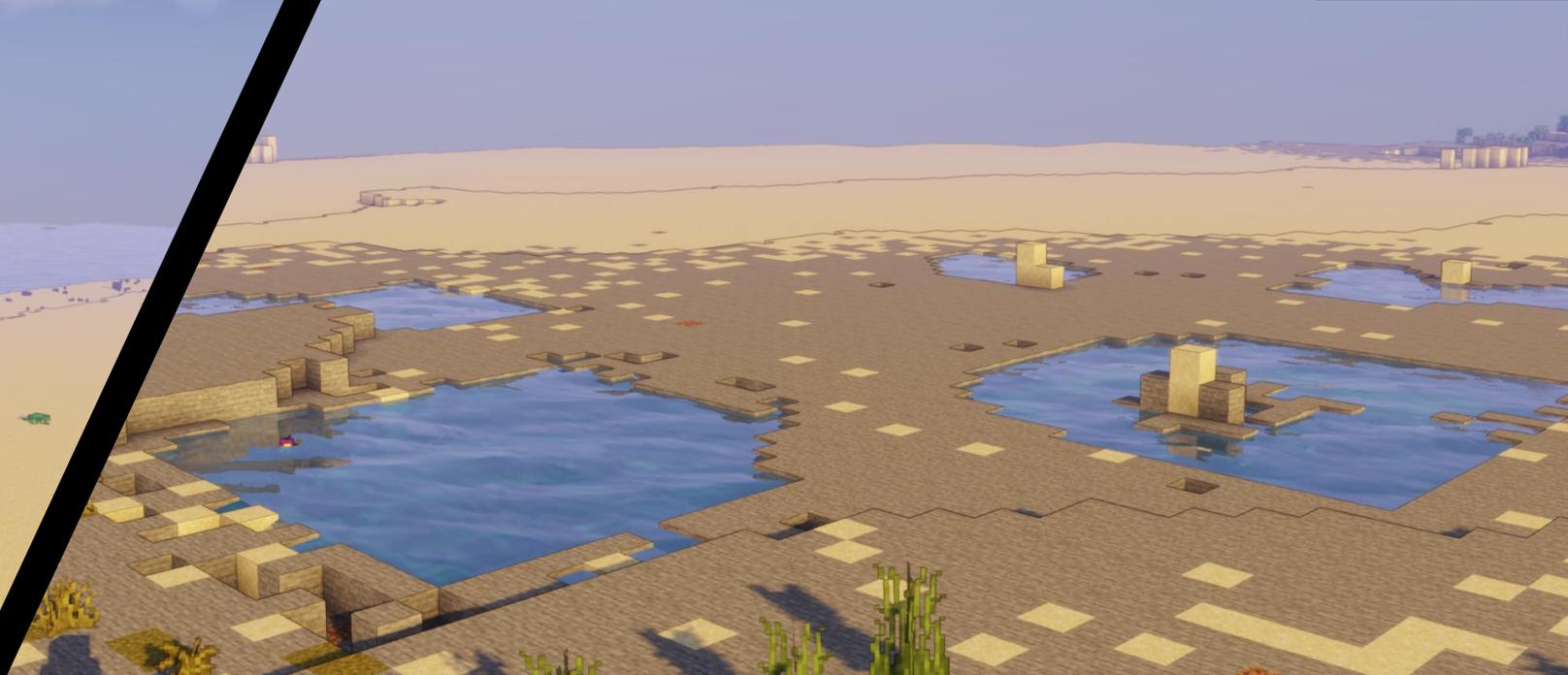
Millport Station





Experiments and Data Collection





[Potential Streaming Point]



Students in the field

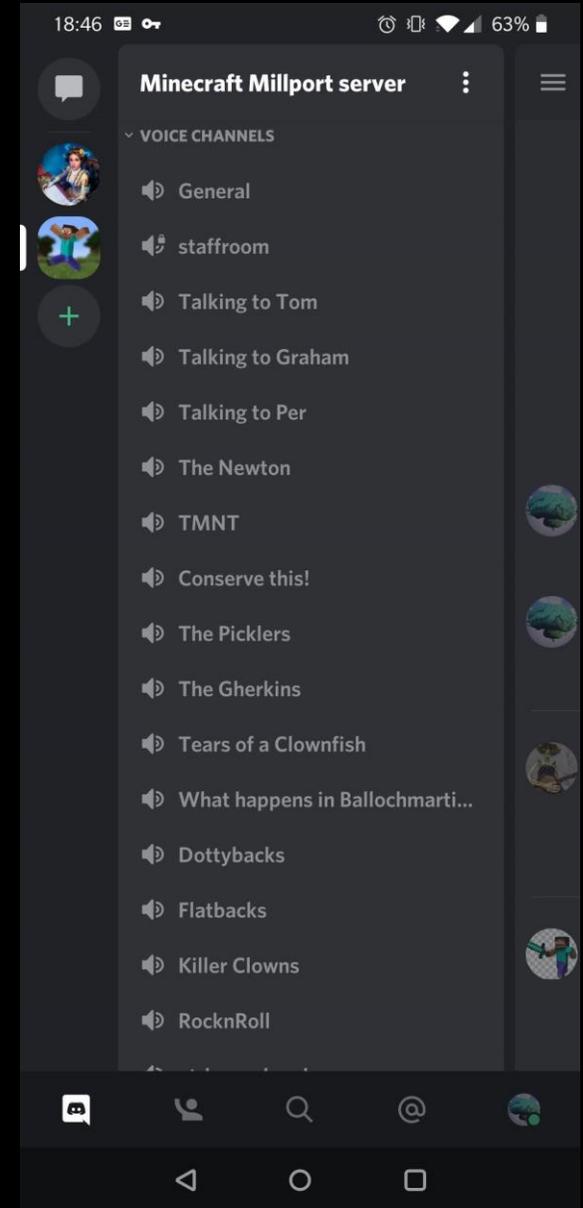
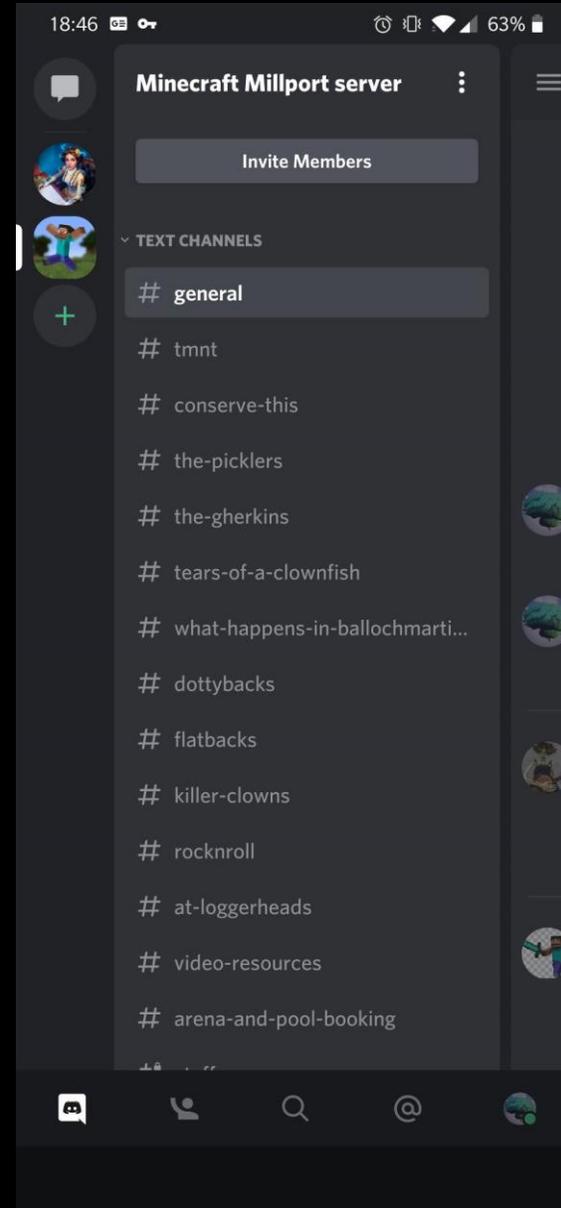


Collaboration

Students and staff could chat in-game (text) or on a Discord server (text, audio, video)

Allowed staff to communicate quickly with teams, allowed teams to swap data, information, and just generally chat in semi-private spaces

Extended this into evening social events





Freedom to be creative





x: -272687, z: -75289, y: 107 (6)
Jungle Edge



Handoddvastiau

moonJelly500

s18324

Dakination

gprz44-17

Jesse233

eilidhhan

elly_1011

inthis.dougarg

Pancake102

Tonyorn0

nickkail03

forsh

ThunderbirdTheo

MichaelJames

Junokouke2231

Caviaforcellus2

RetiringArrou58

KaliWilson



THE NEWTON

Per Smiseth

Tom Little

Richard

Susan Johnston

Graham Stone



Student Feedback

I think it simulated data collection as realistically as possible online!

Using discord and minecraft allows group work which made it alot more fun The world was amazing and the work that was put in to make the online fieldtrip fun and interactive was very much appreciated Data collection was **easy and accessible to people that have never used minecraft before** (myself)

I very much appreciated the effort put into making the experience as genuine as possible.

Best online experience of group working so far

It was actually more fun than I was expecting to work together to place quadrats and collect the data and it did feel like (almost) real group fieldwork.

[...] it definitely made this field course the **best part of this semester** for me.

Despite initial suspicion when it was first announced, from the moment I first joined I personally was very impressed and totally converted. It was great, and **a lovely substitute to the the field-course**, I learnt a lot and thoroughly enjoyed it!

The Minecraft fieldcourse **would be a valuable tool** in years when the actual fieldcourse can take place, **as a dryrun of methods and thinking about stats**

I just really **struggled to make any connections** between minecraft millport and real life. I feel quite **over exposed to screens this year**, and just don't really enjoy the video game environment personally.

It was fairly exhausting - but I think field courses usually are, so it's not really a criticism! It might just be me because **I'm not used to this much social interaction after a year of isolation...** I don't really have any complaints - although it of course doesn't compare to a real field course, it was as close as you could get to the real thing!

Not a replacement for real fieldwork (It was probably the best of a bad situation, **100%** better than being given a data set)

I am terrible at Minecraft and accidentally bludgeoned several sheep to death. My laptop also can't cope with Minecraft and has been making wheezing noises for the last five days.

i found it quite **difficult to relate** our minecraft experience to the real world, especially when it came to analysing our results.

I did not like the fact that our studies had **no connections with the [sic] reality**

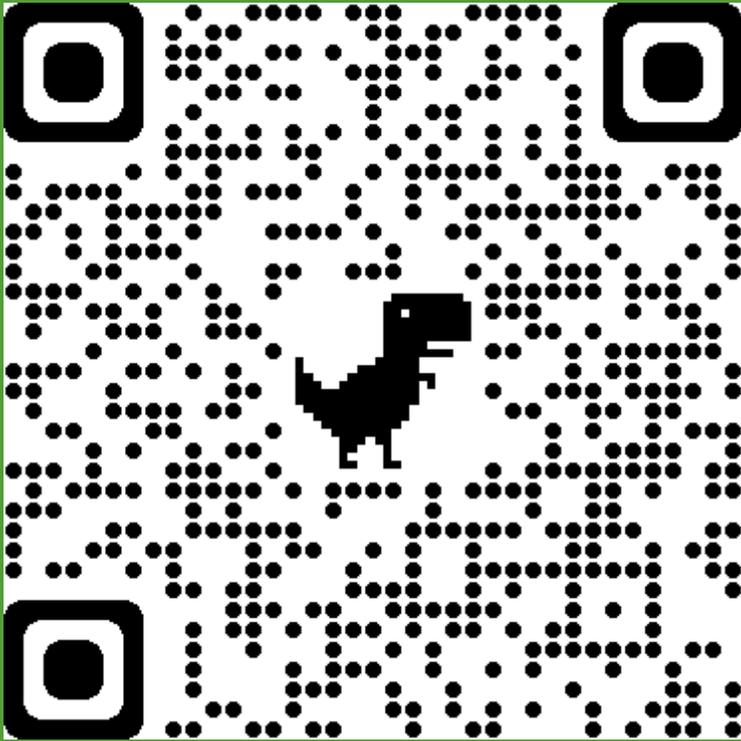
Breakout Section

How could you use Minecraft in your Discipline?

1. How could you abstract your content into a game environment?
2. Are your students interested in the prospect of game-based learning?
3. What skills could you conduct in a game environment that would complement your existing practice?
4. Could you get students to build these as part of your Programme, or as a research project?
5. Could you work with other academics in your group to achieve this?
6. What are the pitfalls of this approach?
7. Would you (or a team) be able to invest the time into this?

Further Resources

Information Pack



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THANK

YOU

