



Resource, Respond, Rescue!

TEACHER GUIDE

Teacher Guide v1.4 | Resource, Respond, Rescue! v1.4



Summary

In *Resource, Respond, Rescue!* (RRR), a *Minecraft: Education Edition* (MC:EE) world, players are presented with a series of natural disaster **scenarios** which they must manage by implementing the appropriate **mitigations** for each disaster.

The teacher will login to MC:EE and **host** a session which other players can then **join** via their own copies of MC:EE, over the internet/network in the **same physical space**. Players will enter the game in the **lobby** and learn about disaster mitigations while they wait for everyone to finish joining.

While in the **lobby**, players can speak to **NPCs** and explore **lobby exhibits**. There are **lobby exhibits** in the **upstairs**, and **downstairs** sections of the **lobby**. The **lobby** is also home to a **dispenser** which, when used by the players, will issue them a **journal**, **portfolio**, and **camera**, for them to record their experiences in RRR.

After being directed to a specific **scenario room** – **bushfire**, **flood**, **earthquake**, or **tsunami** – by the teacher, players can review **exhibits** around the **upper level** of the **scenario room** and talk to **NPCs** before collaborating on choosing the correct **mitigations** to alleviate the disaster.

The **diorama** – representing a town, mine, or surrounding area – can be found on the **lower level** of each **scenario room**. Under teacher supervision, the players can go down and explore the **diorama**, using their **journal**, **portfolio**, and **camera** to document the experience.

The **simulation** – which enacts the **bushfire**, **flood**, **earthquake**, or **tsunami** on the **diorama** – in each room can be **run** and **reset** as many times as needed. The **diorama** can also be **cleared** by the teacher, teleporting all the players out of the **lower level** and back to the **upper level**.

Each **scenario room** has the same 14 mitigations available. For each **scenario room** there are 4 **correct mitigations** that will result in a perfect, successful ending for the town or mine represented by the **diorama**: it will survive unscathed.

Terminology

MC:EE – Minecraft: Education Edition, the education-specific version of Minecraft developed by Microsoft.

RRR – Resource, Respond, Rescue!, the MC:EE scenario developed by CoRE.

Cheat – a way to allow a different set of permissions (for example, flying) in the game.

Host – the person who started a session of the game. Everyone else joins the host's game.

NPC – a non-player character is a character that is computer controlled. In RRR they deliver information.

Session – a session is created by a host. All the players join a session to play the game.

Teleport – instantaneously moving a player from one place in the Minecraft world to another.

Spawn – when a player arrives into the MC:EE world.

Exhibit – a static piece of the environment with some information to read.

Button – environmental objects that activate things in the world, or display information.

Mitigation – an option that could potentially be deployed in the world to prevent a certain kind of disaster.

Correct Mitigation – a Mitigation that is one of the 4 that make up the full solution to mitigating a specific disaster. A Correct Mitigation for one disaster could be an Incorrect Mitigation for another.

Incorrect Mitigation – a Mitigation that is not one of the 4 that make up the full solution to mitigating a specific disaster. An Incorrect Mitigation for one disaster could be a Correct Mitigation for another.

Scenario Room – the area containing an upper level, full of exhibits and NPCs, and the buttons to activate mitigations, and reset/clear/run the simulation, and ask for a hint, as well as the lower level containing a diorama.

Diorama – the miniature town or mine in the lower level of a scenario room. Where the Correct Mitigations take effect, and where the disaster simulation occurs.

Simulation – the simulated disaster that happens to the diorama.



GETTING STARTED



Getting Started

IMPORT & INSTALL

You will need:

- a device that will be available for your exclusive use whenever *Resource, Respond, Rescue!* is being played.
- *Minecraft: Education Edition* installed and logged in.
- the *Resource, Respond, Rescue!* map file downloaded.

You will need *Minecraft: Education Edition* installed on your device and to be logged in to a valid account that belongs to an authorised educational institution or that has otherwise purchased access to MC:EE. For general MC:EE information, read the guides available at

education.minecraft.net/en-us/get-started

Once you have access to MC:EE, you will need to download the *Resource, Respond, Rescue!* map file from

<https://www.corefoundation.com.au/play>

To begin the import process, start MC:EE and click **Play**.



Getting Started

IMPORT & INSTALL

Click **Import**, then navigate to and select the world file you downloaded (it should have a name ending in “.mcworld”).



After a moment, text should appear at the top of the screen informing that `Level import finished successfully` and the world should now appear in the **View my worlds** list.

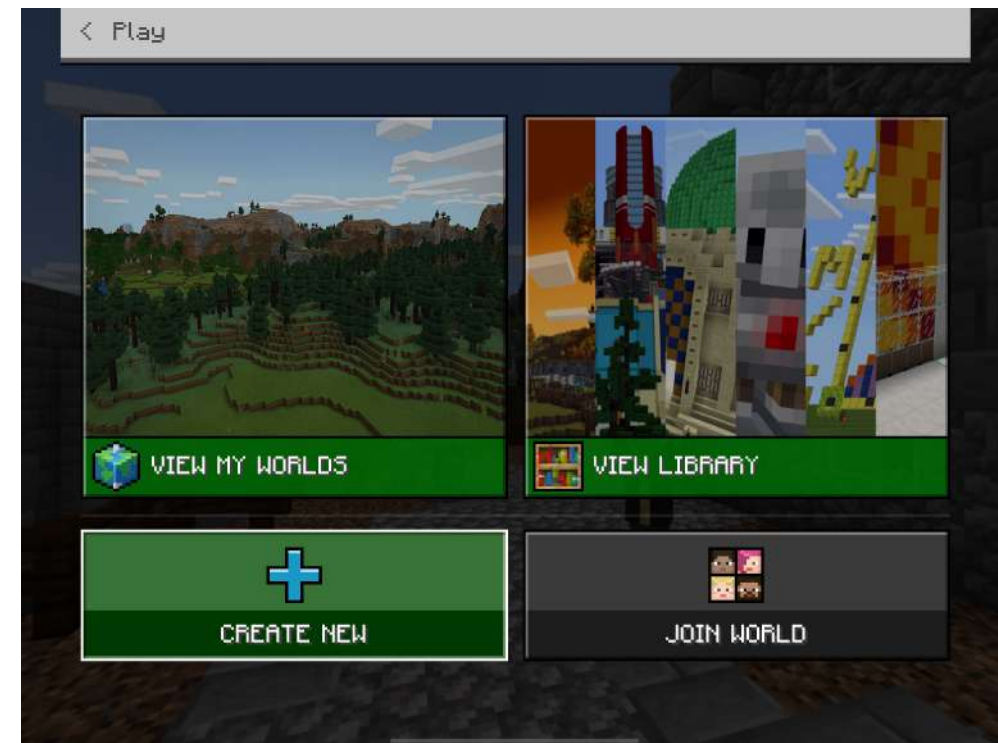
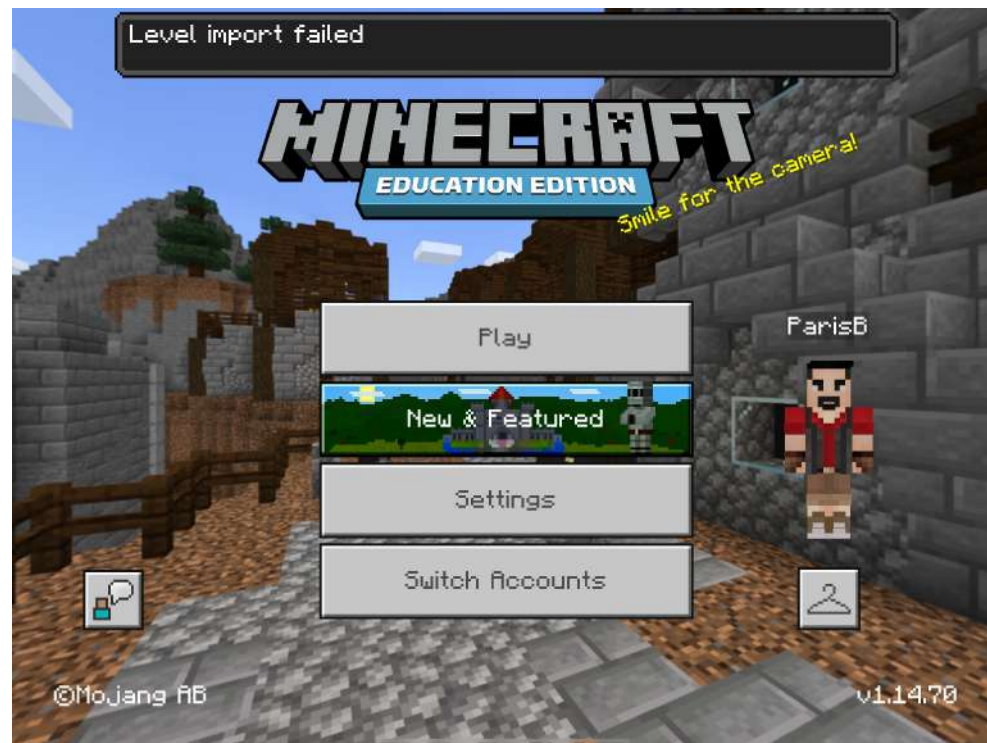


Troubleshooting on iPad

In MC:EE on iPad there is no import world button, but opening a .mcworld file from the Files app will automatically launch MC:EE and attempt to import the file.

However, there is a known issue where opening a world to import may result in the error **Level import failed** with no additional details. This can be caused by MC:EE attempting to move the imported file to the internal folder where it keeps your current worlds, but that folder is only created the first time you make a *new* world on that device.

To fix this, make a new MC:EE world by selecting **Play, Create new** and then **New**. The settings of this world do not matter and can remain as defaults. Press **Play** to spawn into the new world.



You may immediately quit this new world and return to the file location. Selecting the *Resource, Respond, Rescue!* file again should result in a successful import and the world should now be playable.

Getting Started

HOSTING A SESSION

Make sure to check:

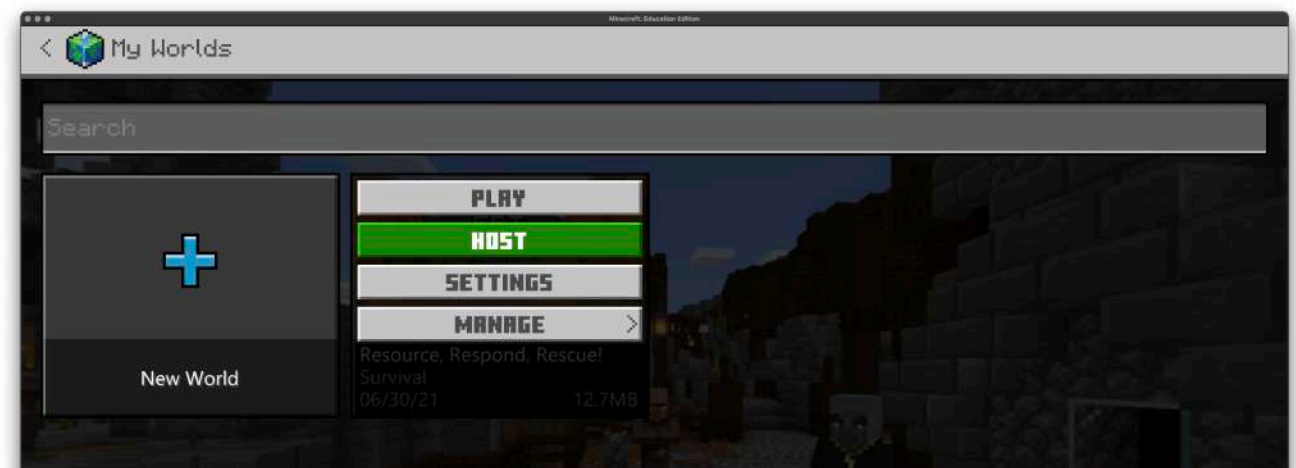
- the host device and all player devices are on the same cabled or wi-fi network.
- the host device and all player devices have the same version of *Minecraft: Education Edition* installed.
- whether your institutional settings require the host and player accounts to use email addresses from the same domain.

To make a game multiplayer in MC:EE, the player who wants to control the scenario (you) must **host** the game. Hosting means that other players can connect to your game for as long as you stay in-game with hosting turned on (a **session**).

The hosting system means only the host needs the world installed for everyone to be able to play. However, if the host quits then everyone else will get kicked out.

On the host's (teacher's) device

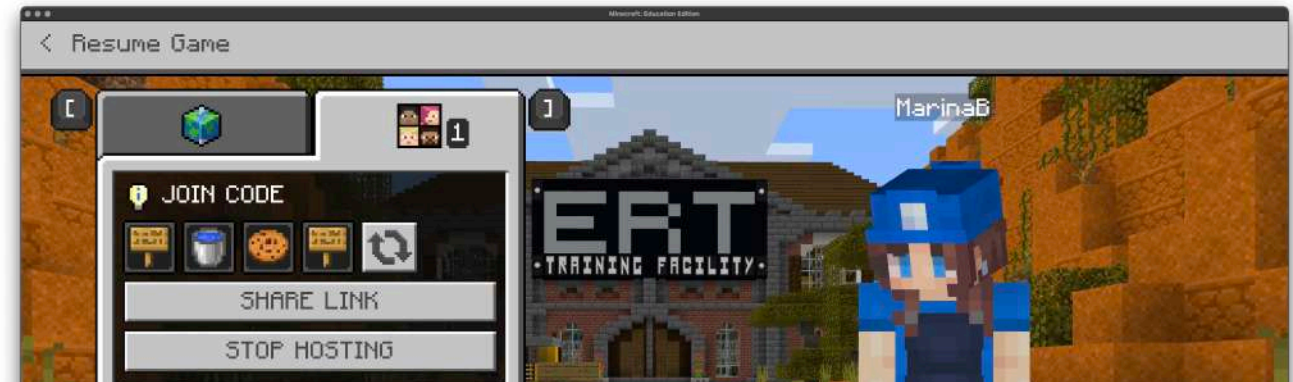
To begin hosting, select *Resource, Respond, Rescue!* in the **View my worlds** list and click **Host**. This will make your game joinable from MC:EE on any device that is on the same network as this host device.



Getting Started

HOSTING A SESSION

Once in the game, bringing up the pause menu should display a **Join code** made up of four symbols, as well as the option to generate a **Share link**.

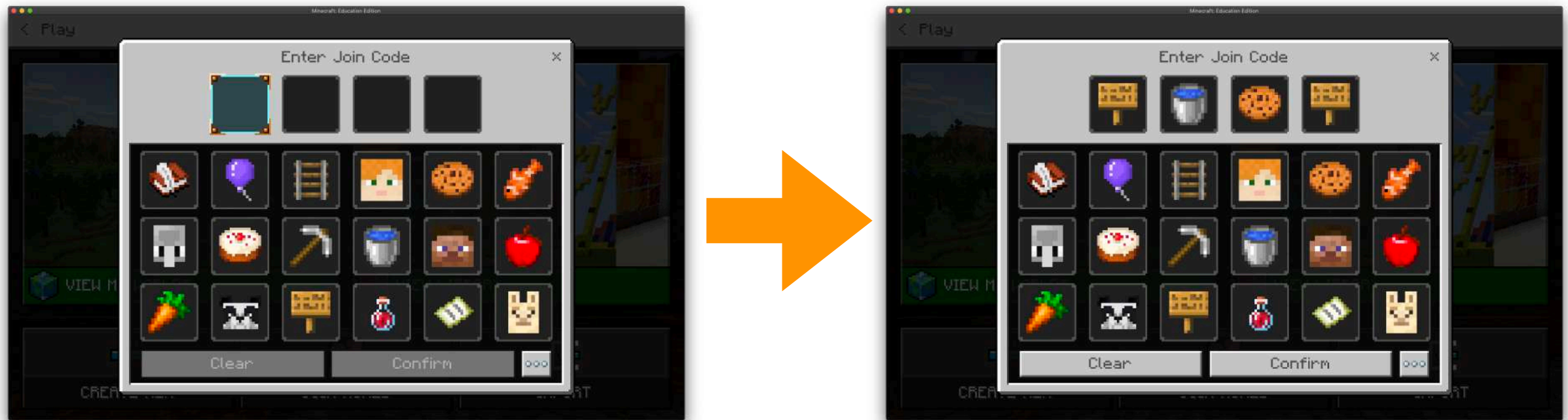


On other players' (students') devices

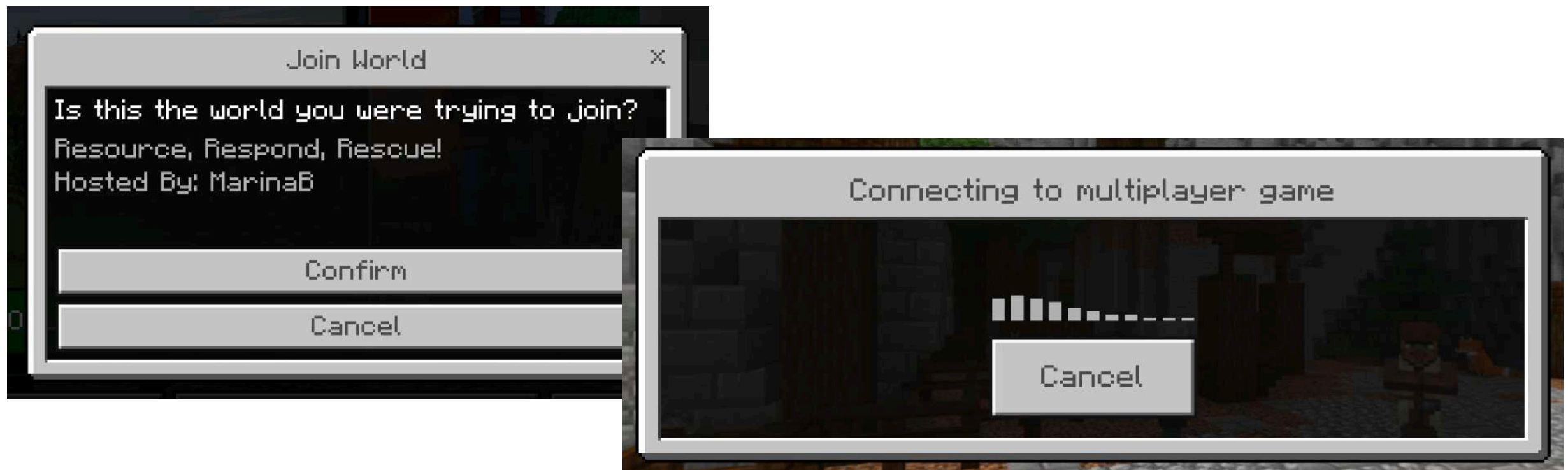
If a share link can be sent to other players via email, messages or similar, they can just click on the link to join the world. Otherwise, students select **Play** and then **Join world**.



This will present a screen of symbols that can be used to enter the same **join code** as shown on the host device.

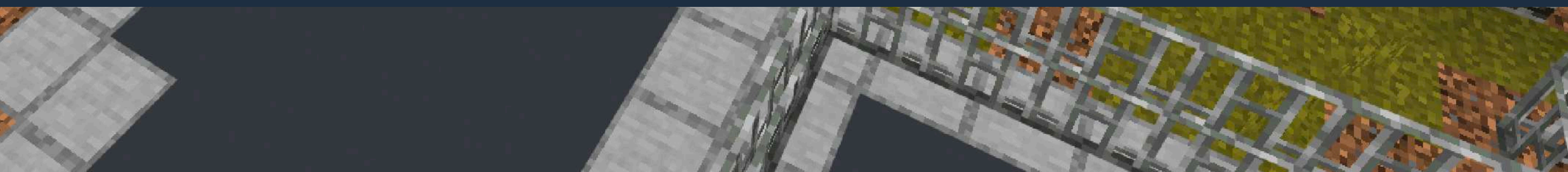


Selecting **Confirm** should display the name of the host and world you are about to connect to. If these are correct, **Confirm** again to connect to the host's game session. The player should appear in the host's world.





GAME AREAS



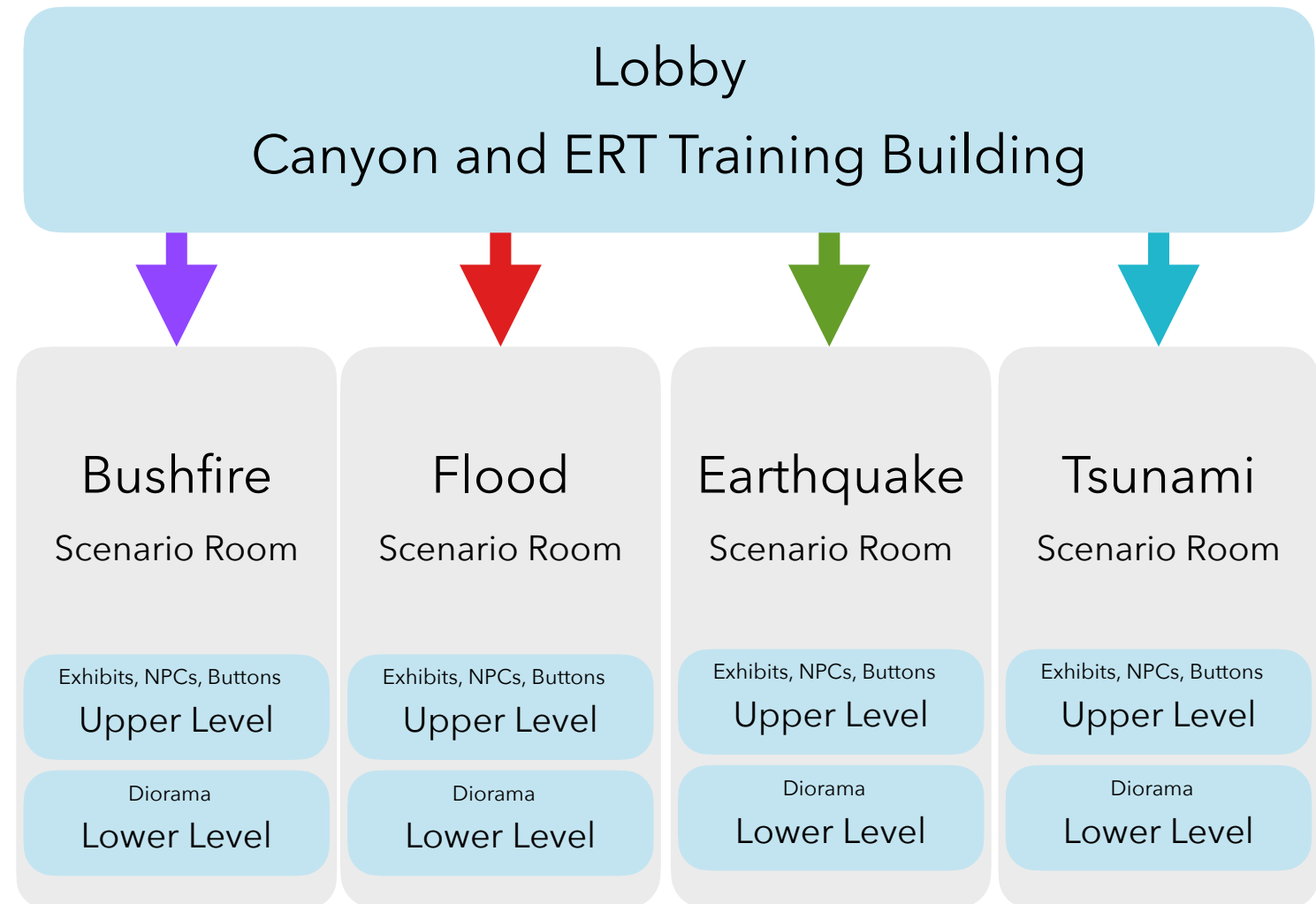
General Concepts

Scenario Rooms

- The game is made up of a lobby, and four scenario rooms.
- The lobby contains lobby exhibits related to each correct mitigation, across all the scenario rooms, as well as a dispenser for a journal, portfolio, and camera.
- Each scenario room represents a specific disaster, and contains exhibits and NPCs related to that disaster, and a diorama of a town or mine.
- Mitigations can be activated within each scenario room, and a simulation run on the diorama to test its readiness for disaster.
- The choice of active mitigations will affect how the diorama responds to the simulation running.

Once all the players and the teacher are in a session of RRR, they will find themselves in a custom MC:EE world.

The world is described in more detail in rest of this section, and follows the following structure.



Game Areas

Lobby

The lobby is the central area of the game through which other areas are accessed.

This is where players begin the game, and where they should wait for everyone to join or to catch up between scenarios.

The lobby has content designed to brief players on strategies they will need to employ in the scenarios.

When a player first joins the world of RRR they will appear in a red desert **canyon** inspired by those found in the Northern Territory. Behind them is a road tunnel with a closed gate, as if they have just been dropped off here. In front of them, wedged into the canyon, is a large building labelled *ERT* (*Emergency Response Team*) Training Facility (below).

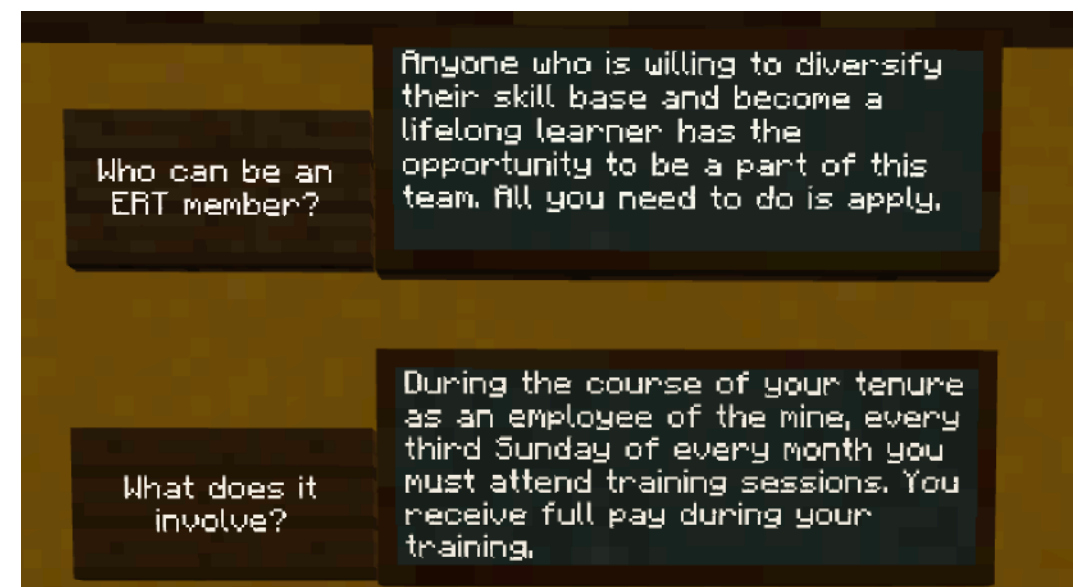


This canyon and the building within it make up the **lobby** area for the game. By video game convention, a lobby is a place where all waiting, coordination and preparation happens between game rounds or challenges. Here, the lobby has portals to the four **scenario rooms** as well as content that will prepare them to face each.



This content is in the form of small **lobby exhibits**: small diorama scenes in glass cases, with posters of information about the contents of the scene. Each **lobby exhibit** (left, top) explains the purpose and benefits of a specific mitigation that will need to be implemented in one or more of the **scenario rooms**, though it is up to players to infer which scenarios each is suited to.

The Lobby also features additional information by way of **NPCs** that should be spoken to on arrival, as well as board of information about the roles, responsibilities and qualifications of ERT members. Interacting with NPCs and exhibits is described shortly.



Game Areas

Shared Concepts

- All four scenario rooms share the same layout.
- Each has an upper level and a lower level.
- The upper level contains the controls for the simulation, the exhibits and NPCs related to the scenario, and the mitigation buttons.
- The mitigation buttons and available mitigations are identical in all scenario rooms.
- The lower level contains the diorama of a town or mine.

All four **scenario rooms** share the same general layout and concepts. They all have an **upper level** and a **lower level**.

Exhibits, NPCs, Buttons
Upper Level

The **upper level** of the **scenario rooms** is where the players arrive when they first enter from the **lobby**. The **upper level** overlooks the **diorama** situated in the **lower level**.

The **upper level** goes all the way around the **diorama** and contains the **simulation buttons**, as well as the **NPCs** and **exhibits**. The **upper level** also contains the **mitigation buttons** to activate the **mitigations**.

The **mitigation buttons** and the **simulation buttons** are identical and in the same place for each **scenario room**.

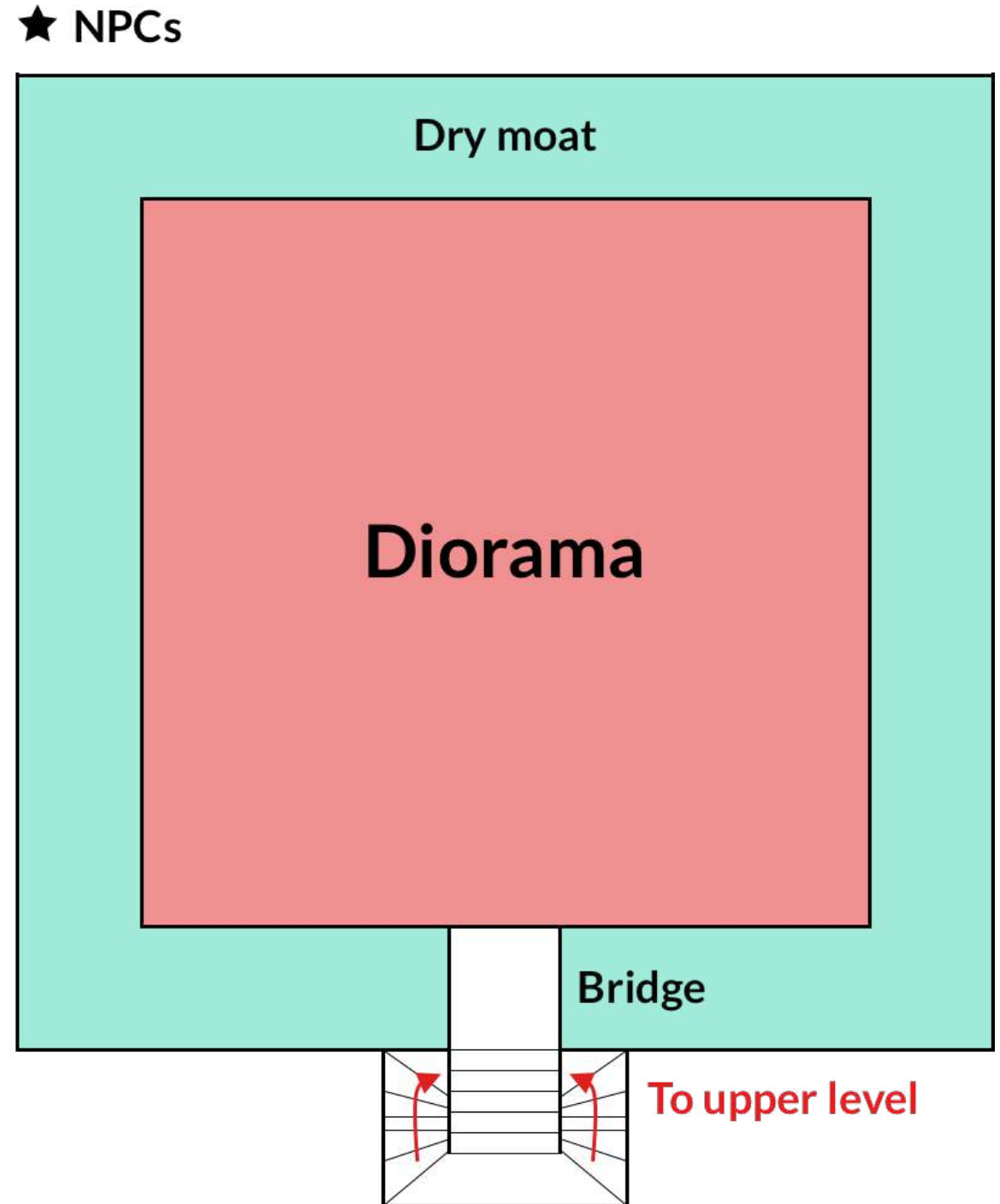
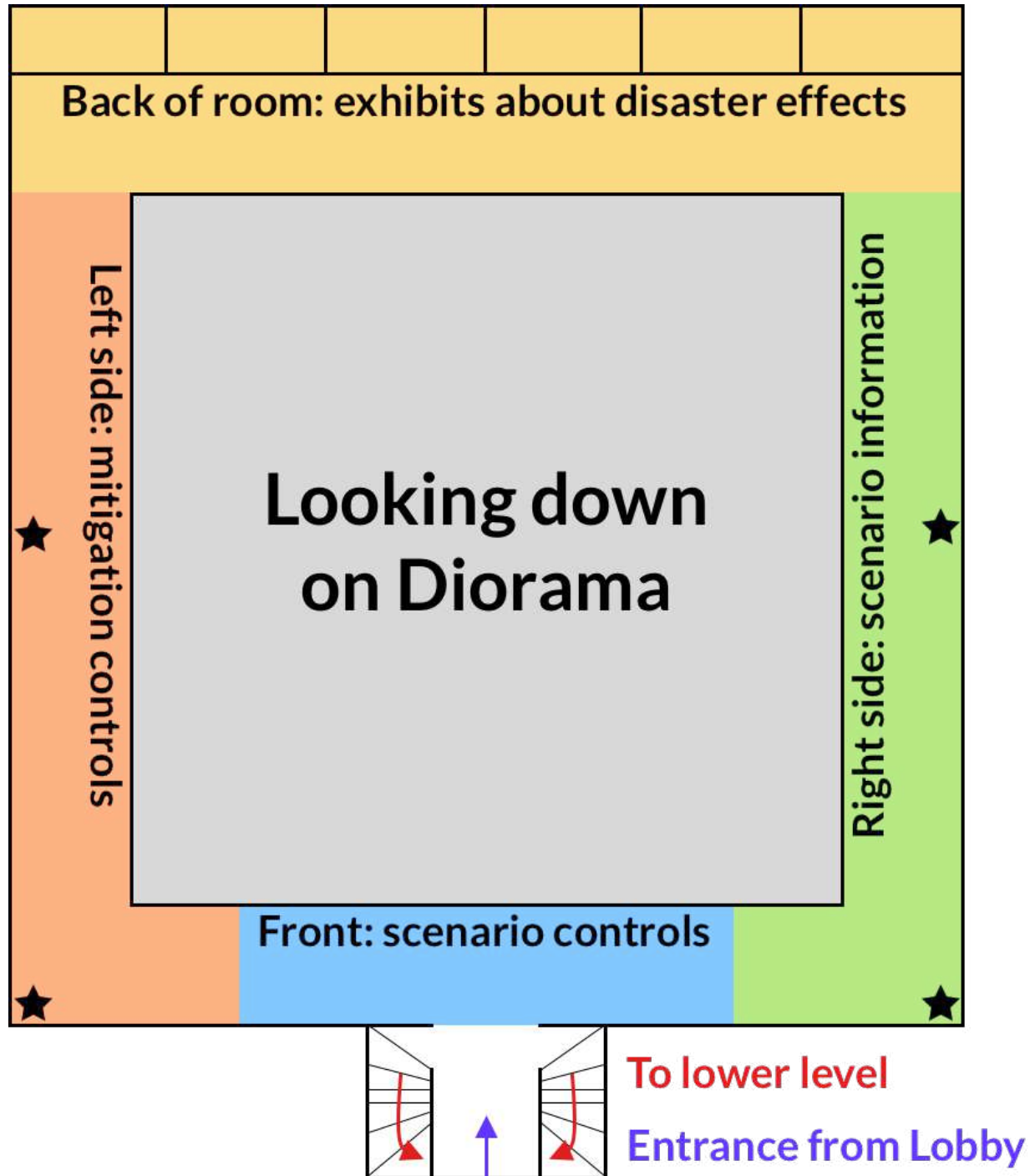
The **exhibits** and **NPCs** are, broadly, in the same place for each **scenario room**, but are different in each.

Diorama
Lower Level

The **lower level** of the **scenario rooms** contains the **diorama** representing the town or mine impacted by the **simulation** of a disaster. It can be accessed by going downstairs immediately from the entrance area of the **upper level**.

Exhibits, NPCs, Buttons
Upper Level

Diorama
Lower Level



Game Areas

Simulation Buttons

- There are four buttons near the entrance of every one of the four scenario rooms, on the upper level.
- The four buttons are used to control the diorama.

The **simulation buttons** allow the teacher and players to control the simulation. They can be pressed by getting close, centering them on the screen, and using the interact button (right click on mouse).



The **Reset Simulation** button will remove all mitigations from the diorama, and reset it to its starting pre-disaster state. It will not remove any players who may be inside the diorama.



The **Ask for a Hint** button will display a hint for each mitigation that is missing from a correct solution. For example, if a scenario has had one correct mitigation activated, then this button will display three hints.



The **Clear Diorama** button removes all players from the diorama area, and teleports them to the upstairs viewing area of the current scenario room. The door to the diorama will be closed until either the **Run Disaster Simulation** or **Reset Simulation** button are pressed.



The **Run Disaster Simulation** runs the simulation on the diorama for the current scenario. Make sure to **Clear Diorama** first if any players remain downstairs, to prevent them being harmed during the disaster simulation.

Game Areas

Mitigation Buttons

- There are 14 mitigation buttons in all the scenario rooms, on the upper level.
- They are in the same location and represent the same mitigation in each scenario room.
- Correct mitigations will result in a message being displayed, plus changes in the diorama, in the lower level.
- Incorrect mitigations will result in a message being displayed.

There are 14 **mitigation buttons** around the **upper level** of the **scenario rooms**. They are found if you go to the left after arriving in the **scenario room**, following the orange path.



Each **mitigation button** features a small icon related to the **mitigation**, a sign naming the **mitigation**, and a **mitigation button** to press.

Pressing the associated **mitigation button** will activate that **mitigation**. Anyone can activate any **mitigation** at any time.

Each **scenario room** has 4 **correct mitigations**. Activating any of these **correct mitigations** for a **scenario room** will result in changes to the **diorama** (for example, if a **mitigation** relates to adding walls to prevent fire, walls might appear in the town in the **diorama**). A message will also be displayed.

[Correct] Flood channels will divert the water away from the mine and its infrastructure, to prevent flooding.

Activating any of the **incorrect mitigations** (the **mitigations** that are not correct for a given **scenario room**) will not change the **diorama** and will display a message regarding that specific **incorrect mitigation**.

[Incorrect] No matter how strong house frames are they will not stop raging flood waters.

Game Areas

NPCs

- There are a variety of information-giving NPCs in the lobby and scenario room areas.
- Each NPC can deliver information if you interact with it.
- Some NPCs will deliver additional information via buttons located next to them, which can be pushed for information on the topic named on the card next to the button.
- The buttons next to NPCs are activated the same way as the mitigation buttons.

There are a variety of **NPCs** in both the **lobby** and the **upper level** of each **scenario room**. Each **NPC** can be spoken to by interacting with them.

To interact with an **NPC**, a player should approach them until their name or title is visible above their head, and place the crosshair (the + symbol in the middle of the screen) on them, and use the mouse to right-click on them (on devices without a mouse, there will be an on-screen button).



Text from the **NPC** will appear in the middle of the screen. The escape button on the keyboard will dismiss it.



Game Areas

Bushfire

- Accessed via the purple path from the Lobby.
- A small town, Quartz Ridge, with a rail line, next to a woodland.

The Bushfire Scenario Room is accessed via the **purple path** from the Lobby.



The Bushfire Scenario diorama is based in a small town, Quartz Ridge, adjacent to a rail line, and a woodland area, with many trees and plants.

As with all scenarios, there are **four correct mitigations** from the **fourteen mitigations** available that must be **activated** in order to fully protect the **diorama** town from a **bushfire**.

Game Areas

Bushfire

- Fire fuel must be reduced with backburning.
- Fire spread must be reduced with fire breaks.
- Radiant heat damage must be reduced with break walls.
- Fire fighting capability must be bolstered with water tanks.

The **four** correct mitigations for the **Bushfire Scenario** are listed in the table below. All the other mitigations are considered incorrect for the **Bushfire Scenario**.

Mitigation	
Backburning	Correct
Break Walls	Correct
Escape Route	Incorrect
Fire Breaks	Correct
Flood Channels	Incorrect
House Frames	Incorrect
Planting	Incorrect
Seismometers	Incorrect
Sensor Buoys	Incorrect
Tree Trimming	Incorrect
Town Survey	Incorrect
Water Tanks	Correct
Wave Breaks	Incorrect
Weather Radar	Incorrect

Game Areas

Bushfire

- There are 5 NPCs in the Bushfire Scenario Room.
- NPCs are all on the upper level of the Scenario Room.
- Every NPC can be spoken to, and will deliver some information.
- Some NPCs have an array of buttons next to them, which will continue the conversation by providing more information based on which button is pressed.

There are a range of **NPCs** in the Bushfire Scenario Room. They can all be found on the upper level.



The **NPC ERT Leader** welcomes you to Quartz Ridge, and prompts you to try and find the best mitigations to mitigate a bushfire.



The **NPC Town Fire Chief** will talk about volunteers and training for the local fire service, and how they keep the town safe.



The **NPC Bushfire Expert** will talk about historical bushfires in Australia. There are three buttons for more information on Black Saturday 2009, the Kimberley Grassfire 2011, and the Australia-wide fires of 2019-2020.



The **NPC First Nations Fire Expert** will talk about the techniques that First Nations people use to prevent bushfire. There are three buttons for more information on burnings, cool burnings, and slow fires.



The **NPC Environmental Ranger** will talk about how they collaborate with the Fire Chief and the First Nations people to organise burns, replenish water tanks, and create fire breaks.

Game Areas

Bushfire

- There are 11 exhibits in the Bushfire Scenario Room.

There are a range of **exhibits** in the Bushfire Scenario Room. They can all be found on the upper level:

- Warped Train Tracks
- Lightning and Lightning Rods
- Community Support
- Plants and Bushfires
- Air Quality and Bushfires
- Blocked and Damaged Roads
- Impact of Bushfires
- Fire and Land Management Biosphere Practices
- History of Quartz Ridge
- Explosive Gum Trees
- Dry Spinifex Grass

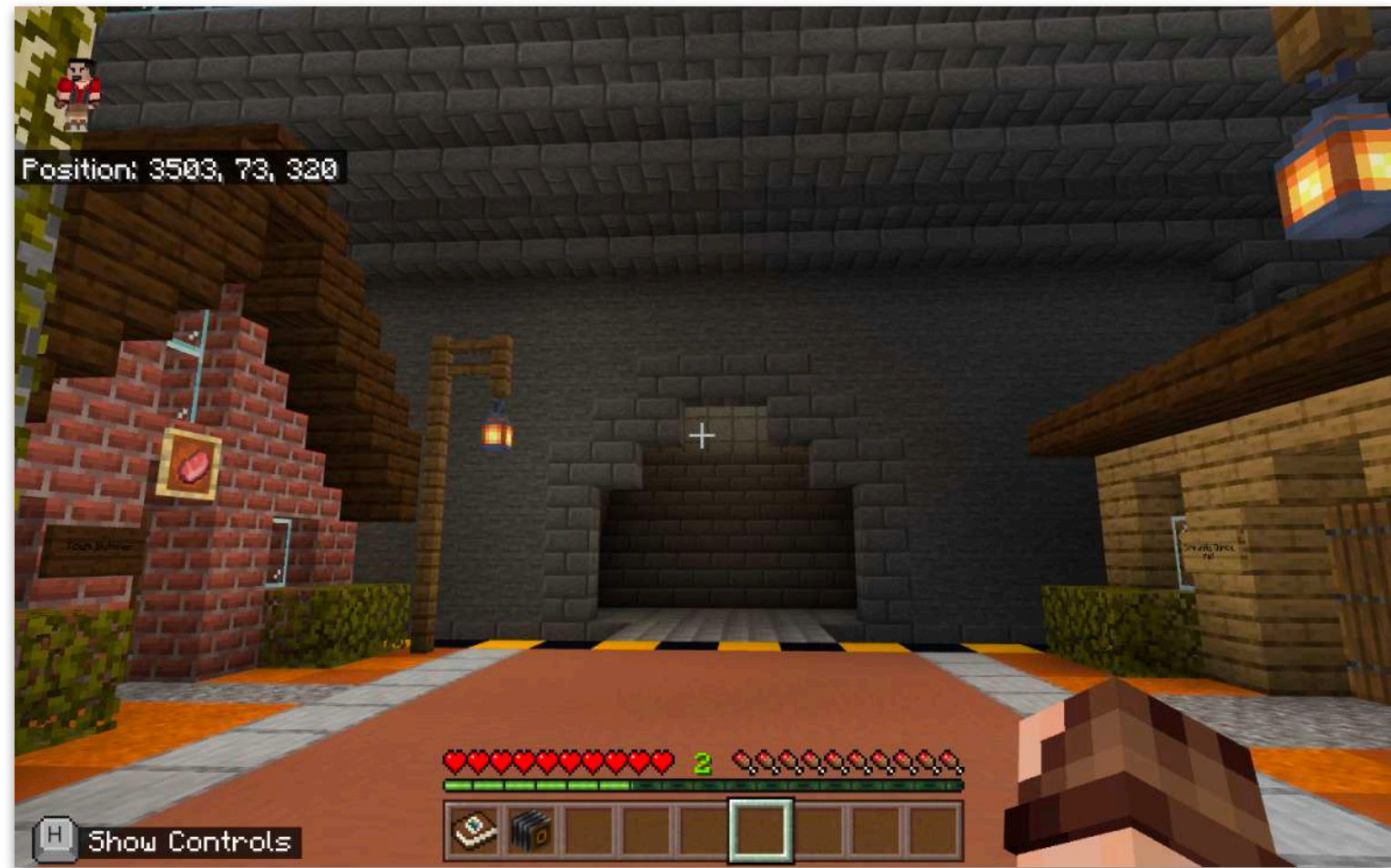
Each exhibit will provide some information, and a small display on its topic.

Game Areas

Bushfire

- The diorama exit is found next to the butcher's shop.

The **diorama exit** can be found next to the butcher's shop, which is a red brick building.



Game Areas

Flash Flood

- Accessed via the red path from the Lobby.
- An open cut mine, with the potential for flash flooding.

The **Flash Flood Scenario Room** is accessed via the **red path** from the Lobby.



The Flash Flood Scenario **diorama** is based at an open cut mine, Midas Mine, adjacent to Quartz Ridge, the town from the Bushfire Scenario diorama. Seasonal rivers run nearby, and the mine is one of the lowest points in the desert area, posing a flash flood risk.

As with all scenarios, there are four correct mitigations from the fourteen mitigations available that must be activated in order to fully protect the diorama mine from a flash flood.

Game Areas

Flash Flood

- Flood waters must be held back by break walls.
- Flood waters must be diverted with flood channels.
- Ground absorption must be increased with planting of trees and shrubs.
- Flood warning must be made possible with weather radar.

The **four** correct mitigations for the **Flash Flood Scenario** are listed in the table below. All the other mitigations are considered incorrect for the **Flash Flood Scenario**.

Mitigation	
Backburning	Incorrect
Break Walls	Correct
Escape Route	Incorrect
Fire Breaks	Incorrect
Flood Channels	Correct
House Frames	Incorrect
Planting	Correct
Seismometers	Incorrect
Sensor Buoys	Incorrect
Tree Trimming	Incorrect
Town Survey	Incorrect
Water Tanks	Incorrect
Wave Breaks	Incorrect
Weather Radar	Correct

Game Areas

Flash Flood

- There are 5 NPCs in the Flash Flood Scenario Room.
- NPCs are all on the upper level of the Scenario Room.
- Every NPC can be spoken to, and will deliver some information.
- Some NPCs have an array of buttons next to them, which will continue the conversation by providing more information based on which button is pressed.

There are a range of **NPCs** in the Flash Flood Scenario Room. They can all be found on the upper level.



The **NPC ERT Leader** welcomes you to the Midas Mine, and prompts you to try and find the best mitigations to mitigate a Flash Flood.



The **NPC Hydrologist** will talk about how water flows in the area, and the impacts of nearby rivers and rainfall on the Midas Mine.



The **NPC Meteorologist** talks about how climate models can be used to predict upcoming weather. There are three buttons for more information on La Niña, El Niño, and the Indian Ocean Dipole.



The **NPC Civil Engineer** will talk about potential engineering works that can help with flood control. There are three buttons for more information on Levee Banks, Diversion Channels, and Greenbelt Stabilisation.



The **NPC Pastoralist** will talk about how their family has recorded indicators of potential weather, such as flowering times, for many generations.

Game Areas

Flash Flood

- There are 11 exhibits in the Flash Flood Scenario Room.

There are a range of **exhibits** in the Flash Flood Scenario Room. They can all be found on the upper level:

- Flood water impact on vehicles
- Stilt housing
- Flood water finding the lowest ground for drainage
- Debris and contamination in flood water
- Drinking water logistics after a flood
- Boat travel during a flood, instead of cars
- Temporary inland seas after a flood
- Diverting rivers away from the mine
- Cyclones and La Niña
- Underground rivers
- Preparing a mine for heavy rains

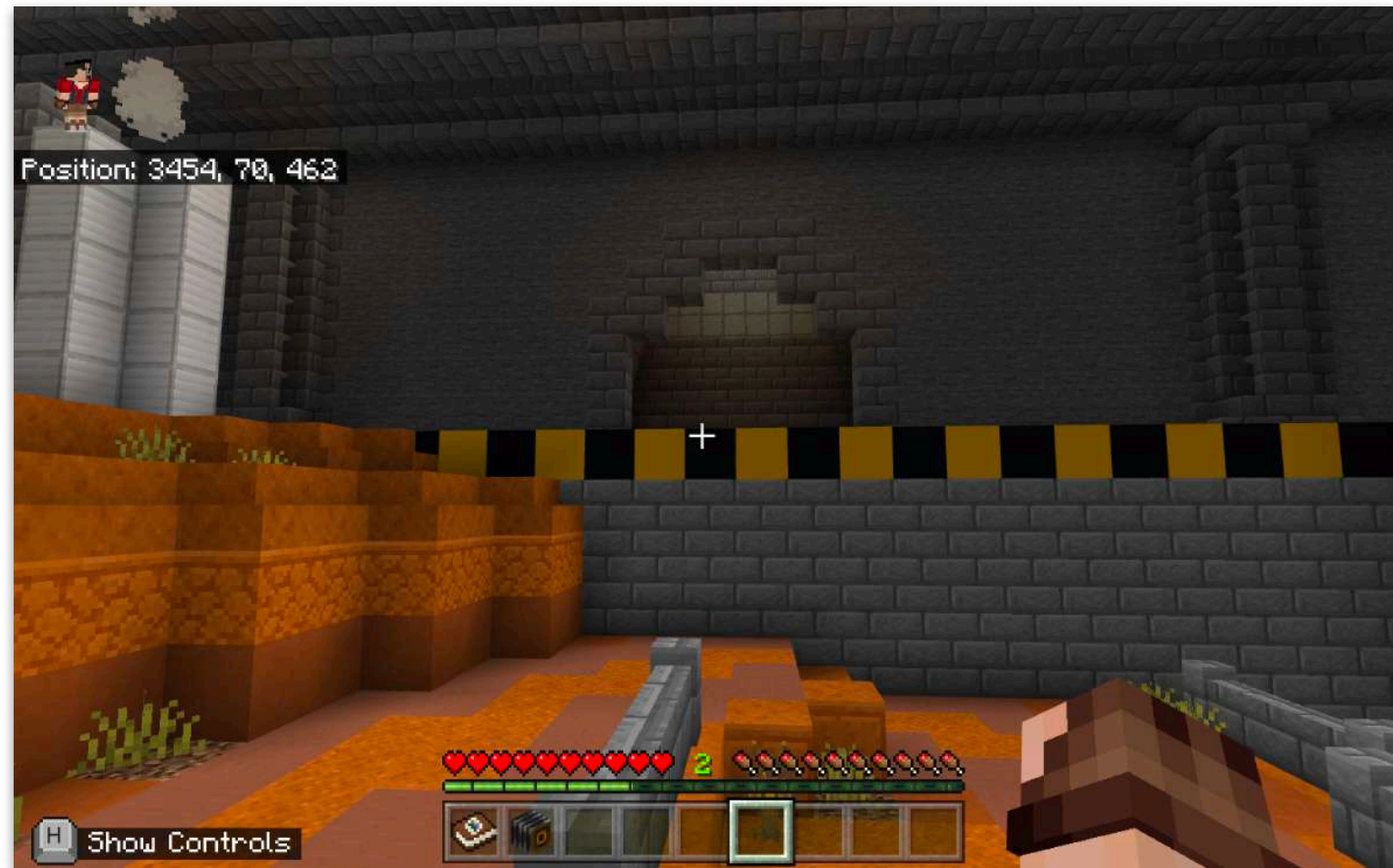
Each exhibit will provide some information, and a small display on its topic.

Game Areas

Flash Flood

- The diorama exit can be found to the side of the pit.

The **diorama exit** can be found to the side of the pit.



Game Areas

Earthquake

- Accessed via the green path from the Lobby.
- A town, built on a fault line, and the location an important logistics centre for a nearby mine.

The **Earthquake Scenario Room** is accessed via the **green path** from the Lobby.



The Earthquake Scenario **diorama** is based in a small town, Rattlerock, that houses the logistics centre for Midas Mine. The town is built near a fault line.

As with all scenarios, there are four correct mitigations from the fourteen mitigations available that must be activated in order to fully protect the diorama town from an earthquake.

Game Areas

Earthquake

- Roof and power line damage must be prevented with tree trimming.
- Structural damage to homes must be prevented with house frames.
- Earthquake warnings must be made possible with seismometers.
- Damage detection and repair must be aided with town survey.

The **four** correct mitigations for the **Earthquake Scenario** are listed in the table below. All the other mitigations are considered incorrect for the **Earthquake Scenario**.

Mitigation	
Backburning	Incorrect
Break Walls	Incorrect
Escape Route	Incorrect
Fire Breaks	Incorrect
Flood Channels	Incorrect
House Frames	Correct
Planting	Incorrect
Seismometers	Correct
Sensor Buoys	Incorrect
Tree Trimming	Correct
Town Survey	Correct
Water Tanks	Incorrect
Wave Breaks	Incorrect
Weather Radar	Incorrect

Game Areas

Earthquake

- There are 5 NPCs in the Earthquake Scenario Room.
- NPCs are all on the upper level of the Scenario Room.
- Every NPC can be spoken to, and will deliver some information.
- Some NPCs have an array of buttons next to them, which will continue the conversation by providing more information based on which button is pressed.

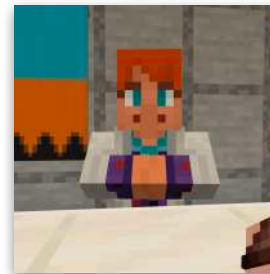
There are a range of **NPCs** in the Earthquake Scenario Room. They can all be found on the upper level.



The **NPC ERT Leader** welcomes you to Rattlerock, and prompts you to try and find the best mitigations to mitigate an earthquake.



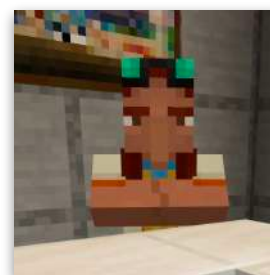
The **NPC Shire Town Maintenance** will talk about how a mining town always has a safety plan, and takes precautionary measures against disasters like earthquakes.



The **NPC Seismologist** discusses earthquake formation and Australian examples. There are three buttons for further information on earthquakes in Western Australia in 1968, New South Wales in 1989, and the Northern Territory in 1988.



The **NPC Civil Engineer** will talk about how buildings can be made earthquake resistant. There are three buttons for further information on flexible foundations, dampers, and futuristic building materials.



The **NPC Shire Utilities Manager** will talk about the impact of a disaster on the town's electricity, water, and gas supplies, and how they often must be temporarily disconnected for safety.

Game Areas

Earthquake

- There are 12 exhibits in the Earthquake Scenario Room.

There are a range of **exhibits** in the Earthquake Scenario Room. They can all be found on the upper level:

- Gorges and canyons
- Pipes, cables, and paving being impacted by earthquakes
- Traditional Japanese Buddhist building, such as pagodas, and their earthquake resistant properties
- Old clocks being impacted by earthquakes, due to their pendulums swinging motion being disrupted by the movement.
- Rail lines becoming warped by earthquakes
- Choice of building materials
- Japan's history of earthquakes
- Northern Territory and Western Australian towns and their frequent earthquakes
- San Francisco's earthquake history
- The Richter Scale
- Groundwater in aquifers
- Rattlerock being on a fault line

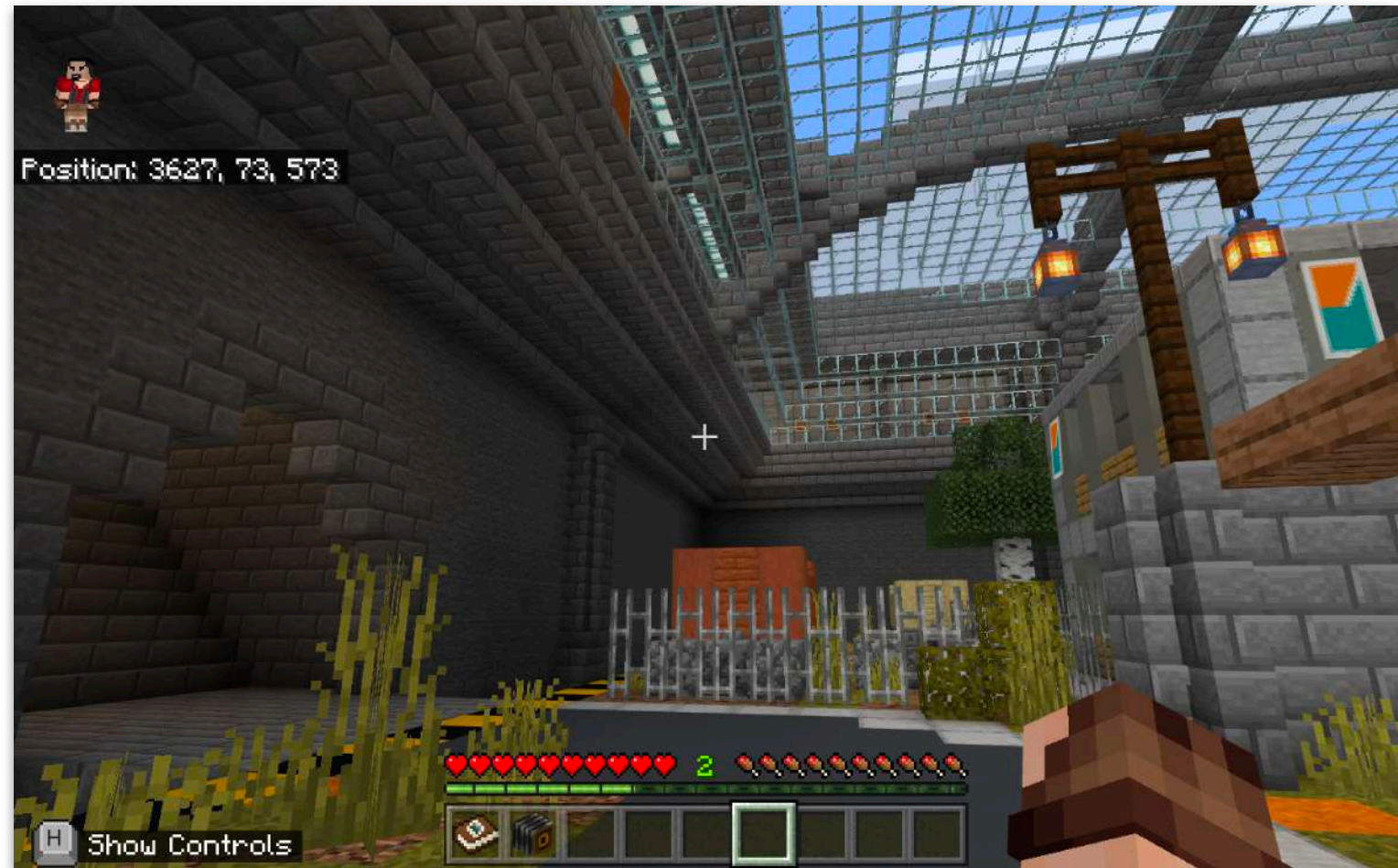
Each exhibit will provide some information, and a small display on its topic.

Game Areas

Earthquake

- The diorama exit can be found near the building with the logo on it.

The **diorama exit** can be found near the building with the logo on it.

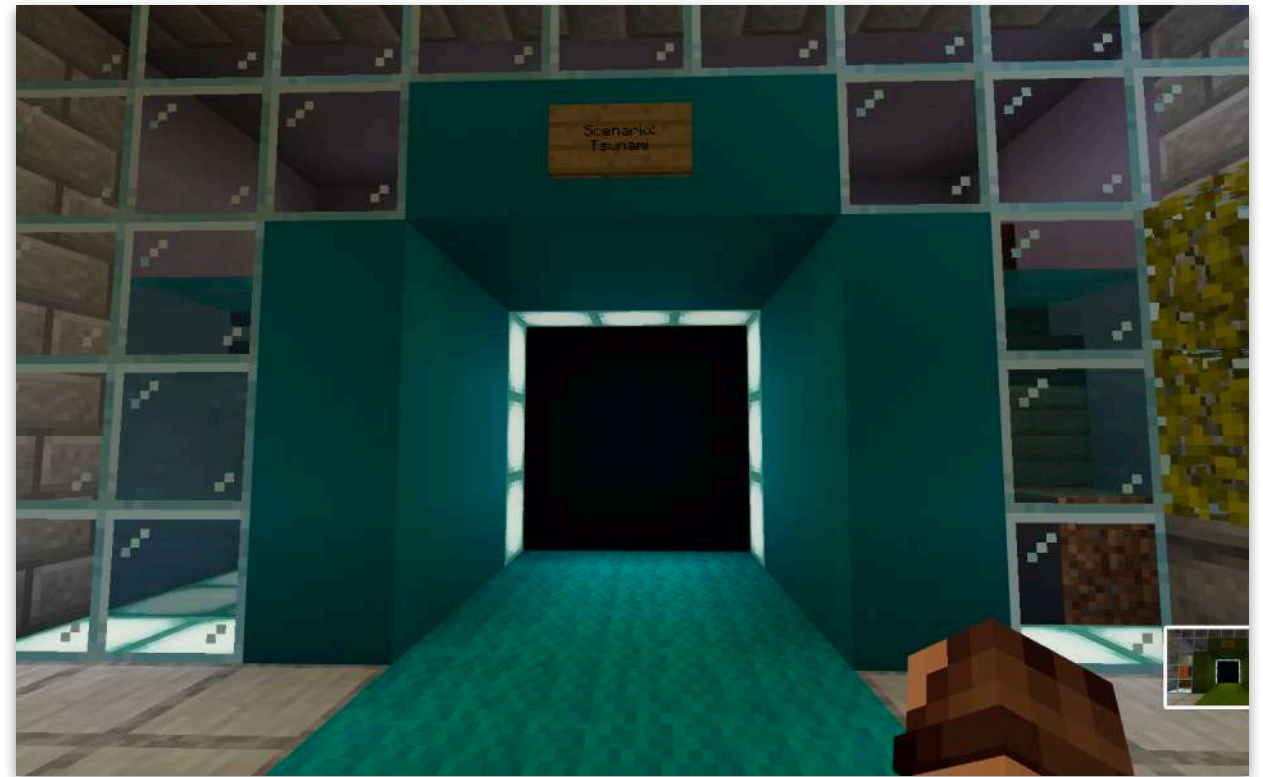


In-Game

Tsunami

- Accessed via the blue path from the Lobby.
- A port town, Shantytown, situated near a seismically active undersea region.

The Flash Flood Scenario Room is accessed via the **blue path** from the Lobby.



The Flash Flood Scenario diorama is based in a coastal town with a port, Shantytown, that serves as the export point for material coming from Midas Mine. The town is near a seismically active undersea region.

As with all scenarios, there are four correct mitigations from the fourteen mitigations available that must be activated in order to fully protect the diorama town from a tsunami.

In-Game

Tsunami

- Tsunami warnings must be made possible with sensor buoys.
- Tsunami force must be reduced with wave breaks.
- Tsunami waters must be reduced with break walls.
- Evacuation must be aided with an escape route.

The **four** correct mitigations for the **Tsunami Scenario** are listed in the table below. All the other mitigations are considered incorrect for the **Tsunami Scenario**.

Mitigation	
Backburning	Incorrect
Break Walls	Correct
Escape Route	Correct
Fire Breaks	Incorrect
Flood Channels	Incorrect
House Frames	Incorrect
Planting	Incorrect
Seismometers	Incorrect
Sensor Buoys	Correct
Tree Trimming	Incorrect
Town Survey	Incorrect
Water Tanks	Incorrect
Wave Breaks	Correct
Weather Radar	Incorrect

In-Game

Tsunami

- There are 5 NPCs in the Tsunami Scenario Room.
- NPCs are all on the upper level of the Scenario Room.
- Every NPC can be spoken to, and will deliver some information.
- Some NPCs have an array of buttons next to them, which will continue the conversation by providing more information based on which button is pressed.

There are a range of **NPCs** in the Tsunami Scenario Room. They can all be found on the upper level.



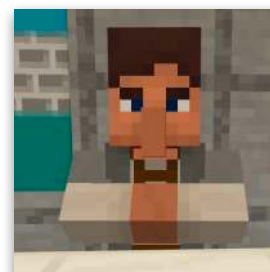
The **NPC ERT Leader** welcomes you to the Shantytown, and prompts you to try and find the best mitigations to alleviate damage against potential tsunami.



The **NPC Port Authority Superintendent** will talk about tsunami detection, and how the decision is made to sound a tsunami alert for the town.



The **NPC Tsunami Expert** talks about how tsunamis are generated. There are three buttons for further information on the Boxing Day Tsunami 2004, the Japan Tsunami 2011, and Krakatau 1883.



The **NPC Planning Superintendent** talks about how to plan for a port town with tsunamis in mind. There are two buttons for further information on long and flat coastlines, and sea walls.



The **NPC Evacuation Leader** talks about how people must evacuate safely if a tsunami alert sounds, getting to higher ground safely.

In-Game

Tsunami

- There are 12 exhibits in the Tsunami Scenario Room.

There are a range of **exhibits** in the Tsunami Scenario Room. They can all be found on the upper level:

- Sand brought inland by a tsunami
- Crops and salt water
- Coastal vegetation and tsunamis
- Sea levels receding as a tsunami indicator
- Submerged building safety
- Damaged and capsized ships
- Damage to coral reefs
- Hawaii's tsunami break walls
- Megatsunamis
- Different types of tsunami
- Tourism and port operations
- Rail in Shantytown

Each exhibit will provide some information, and a small display on its topic.

In-Game

Tsunami

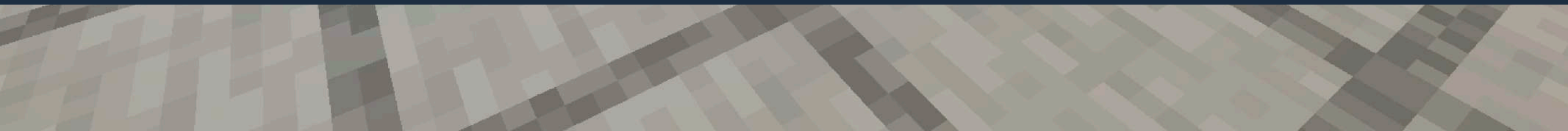
- The diorama exit can be found at the top of the inside of the harbour control tower.

The **diorama exit** can be found by going up the inside of the harbour control tower.





GAMEPLAY GUIDE



Gameplay Guide

Overall

- The overall flow for a session of RRR is based around a teacher-hosted game, which the students all join.
- The teacher then directs the students to explore, take in-game photos, and use the journal/portfolio, and to enter a specific scenario room.
- In the scenario room, students should explore the exhibits and NPCs, take photos, and discuss which mitigations would be the most effective.
- The students should then activate the mitigations they want, and run the simulation to see how the diorama is impacted.

Teacher Hosts a Game

Students Join Hosted Game

Teacher and Students Arrive in Lobby

Teacher Asks Students to Explore Lobby

Students Collect Journal or Portfolio, and
Camera in Lobby

Teacher Asks Students to
Enter a Scenario Room

Teacher and Students
Engage with Scenario

Gameplay Guide

Game Flow

- There are four correct mitigations for each scenario.
- Incorrect mitigations will have no impact on the diorama, and when activated will display a message about why they're incorrect.
- The simulation can be run at any point.
- Students should be encouraged to run the simulation after activating one correct mitigation, and two correct mitigations, and so on, to see the impact on the diorama.
- Once all four correct mitigations have been activated, the diorama will be ready to fully survive the disaster simulation.

The suggested engagement with each scenario is as follows:

1. Invite students to explore the **diorama**, by going to the **lower level** from the **upper level** of the **scenario room**, making notes about what they see, and how they think it might be impacted by the disaster **simulation** for that scenario.
2. Get students to read and absorb the **exhibits** and **NPCs** present in the **upper level** of the **scenario room**, making notes about the information they gain from the **exhibits** and **NPCs**.
3. Invite students to collaborate to decide which of the **mitigations** to activate in order to protect the **diorama** from the disaster **simulation** for that **scenario room**.
4. Through a process of trial and error, the students can activate **mitigations**, and then in consultation with the teacher, use the **Run Disaster Simulation** button to test the **mitigations** that have been activated.
5. The teacher and students can use the **Clear Diorama**, **Reset Simulation**, and **Ask for Hint** buttons as needed.

Gameplay Guide

Completing a Scenario

1. Reset the simulation.
2. Select suitable mitigations.
3. Ask for a hint if necessary.
4. Clear the diorama.
5. Run the disaster simulation.

Before a scenario is attempted, the teacher should always press the **Reset Simulation** button to ensure game circuitry is in the correct initial state and that the bridge that allows student access to the diorama is extended.

Students should then be given the opportunity to explore the scenario room:

- panels around the right side of the room show information about the scenario setting and disaster
- exhibits at the back of the room show examples of potential effects of the disaster being faced
- NPCs around the room speak about different roles they play in managing the setting or disaster
- the diorama itself has details that will affect how it handles the imminent disaster

Once everyone has learned what they can from the **exhibits** and **NPCs** in a **scenario room**, added it to what they learned from the **lobby exhibits**, and discussed which **mitigations** suit the disaster, the chosen mitigations should be implemented by pressing the labelled **mitigation buttons** on the left side of the room.

Where a selected mitigation is incorrect, a **red** message will be displayed. Where correct, a **green** message will be displayed and the mitigation will appear in the diorama.

[Correct] Flood channels will divert the water away from the mine and its infrastructure, to prevent flooding.

[Incorrect] No matter how strong house frames are they will not stop raging flood waters.

Each disaster requires the four **correct mitigations** be selected. If help is needed, pressing the **Ask for a hint** button will display one hint for each correct mitigation that has not yet been implemented. If all necessary mitigations have already been implemented, this button will only display **Hints complete.**

The **simulation** can be **run** using the **simulation buttons** at any time. This will result in the **disaster** being run on the mine or town represented by the **diorama**. Any **correct mitigations** that have been activated will impact the effect of the **disaster** being run on the **diorama** (for example, if the **correct mitigation** of flood channels has been activated for the flood scenario room, flood channels will have appeared in the **diorama**, and the resulting **simulated** flood will respond according to the presence of flood channels, but the complete solution of all four **correct mitigations** will not yet be in place).

To safely deliver any students still exploring the diorama back to the overlooking area, press the **clear diorama simulation button**. This will also retract the bridge and seal off access to the **diorama** until the simulation is either run or reset.

Now that all students are out of harm's way, press **run disaster simulation button** to trigger the disaster in the diorama and observe the effects of the chosen mitigations.

Once the disaster has run its course, displayed messages will tell students how they went.

If the correct mitigations were not implemented, the message **Try Again** will be displayed and the diorama will look destroyed. If the correct mitigations were implemented, the message **Great Job** will be displayed and the diorama will look mostly intact.

Reset simulation to attempt it again.

Recording Student Progress

In *Minecraft: Education Edition* there are special objects that can be given to players to record their progress. The **camera** allows students to take pictures within the world, and the **portfolio** allows students to keep a log of their experiences with these pictures and captions. For longer form writing, the book and quill (also known as the **journal**) allows recording of any combination of pictures and text.

Students can obtain each of these items by interacting with labelled dispensers in the lobby.



You may then ask students to record things in the game such as the factors they think increase the risk of each disaster (e.g. undergrowth makes fires spread faster) or mitigations they selected to deal with them (e.g. in the Bushfire scenario we selected backburning to remove undergrowth). **When a journal or portfolio is complete, it can be exported as a PDF file for external assessment** by following the guide at

education.minecraft.net/en-us/trainings/tutorial-4-camera-and-portfolio

Scenario Solutions

Mitigation	Bushfire	Flash Flood	Earthquake	Tsunami
Backburning	Correct	Incorrect	Incorrect	Incorrect
Break Walls	Correct	Correct	Incorrect	Correct
Escape Route	Incorrect	Incorrect	Incorrect	Correct
Fire Breaks	Correct	Incorrect	Incorrect	Incorrect
Flood Channels	Incorrect	Correct	Incorrect	Incorrect
House Frames	Incorrect	Incorrect	Correct	Incorrect
Planting	Incorrect	Correct	Incorrect	Incorrect
Seismometers	Incorrect	Incorrect	Correct	Incorrect
Sensor Buoys	Incorrect	Incorrect	Incorrect	Correct
Tree Trimming	Incorrect	Incorrect	Correct	Incorrect
Town Survey	Incorrect	Incorrect	Correct	Incorrect
Water Tanks	Correct	Incorrect	Incorrect	Incorrect
Wave Breaks	Incorrect	Incorrect	Incorrect	Correct
Weather Radar	Incorrect	Correct	Incorrect	Incorrect

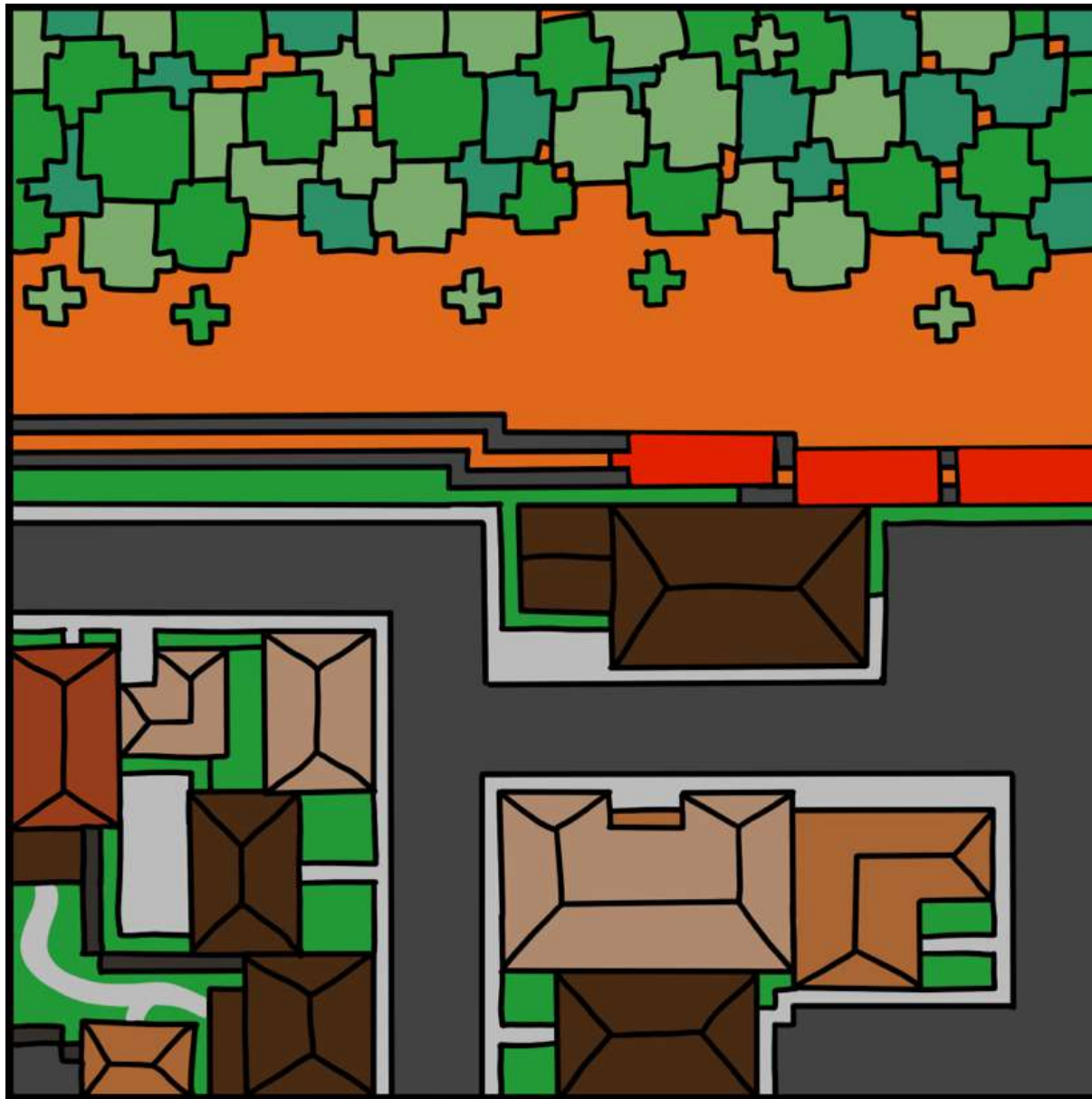
Frequently Asked Questions

Why should I host a game session? Can I not just let a student be the host?

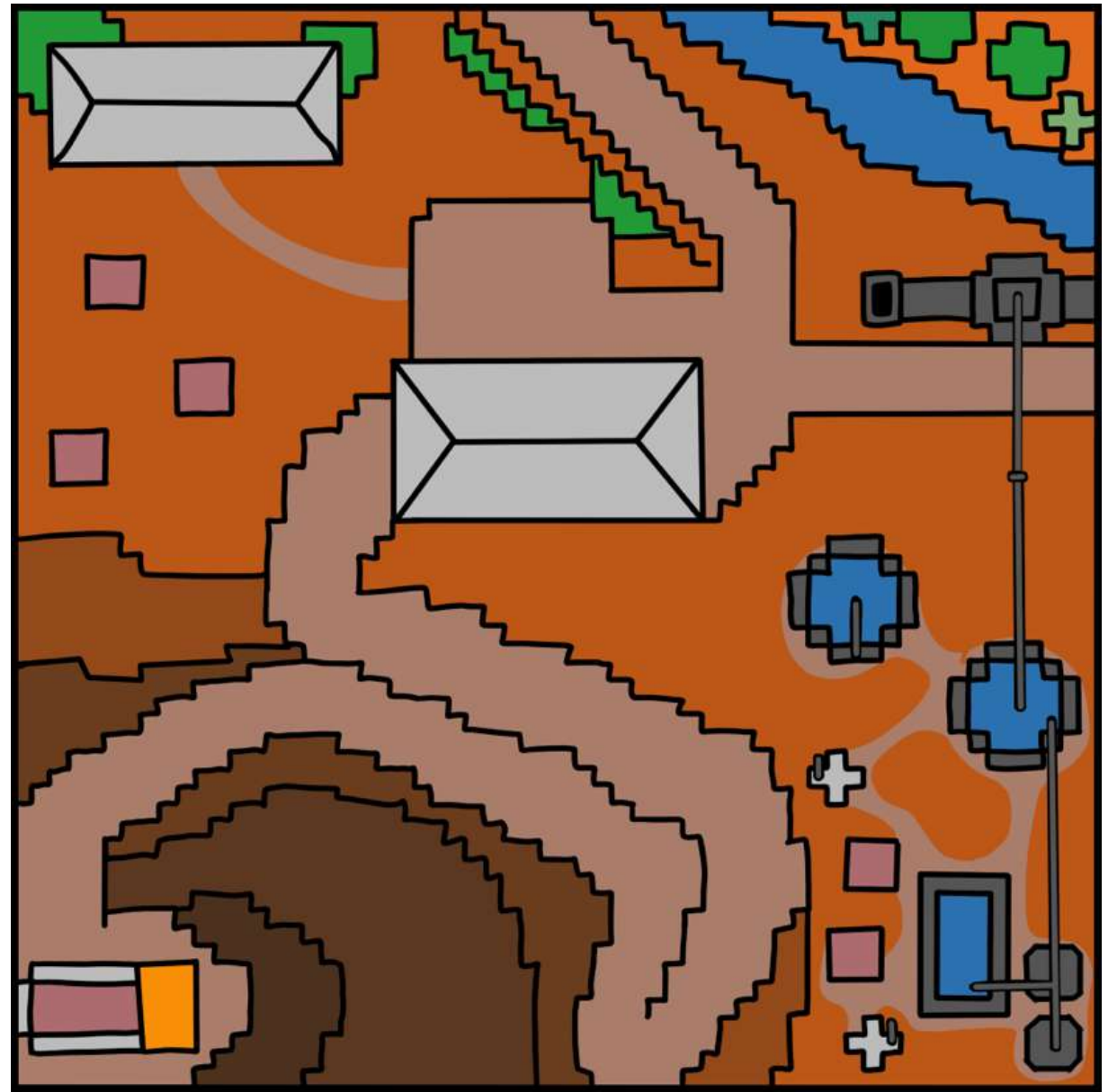
The host of a game session has special permissions. While the host can turn those permissions off for others, they cannot be turned off for the host. This means hosts can damage parts of the game circuitry, circumvent controls, leave the designated game areas and harm other players. The teacher should always be the host, and the students should never be the host in a classroom setting.

Image Assets

For your free use, such as in worksheets for activities relating to *Resource, Respond, Rescue!* **The class could be asked to highlight their adventures in the dioramas on paper printouts of these, for example.**



Bushfire



Flash Flood

These are provided under **CC0** by **the creator**. This means they are able to be used for any purpose.

Image Assets

For your free use, such as in worksheets for activities relating to *Resource, Respond, Rescue!*



Earthquake



Tsunami

These are provided under **CC0** by **the creator**. This means they are able to be used for any purpose.



SECRET LAB