

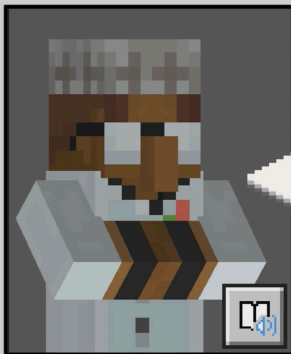


MINECRAFT

**CLIMATE
WARRIORS
LESSON OUTLINE**

CONTENTS

Sections ×



- Phase 1** - Preparedness
- Phase 2** - Bushfire
- Phase 3** - Recovery

WARNING

As this lesson is based on bushfires, some students may have increased sensitivity to some aspects of this experience.

TARGET

Grades 1-6 (7-12yrs)

LEARNING INTENTIONS

Students will take part in a role play within a virtual Minecraft community before, during and after a bushfire emergency.

Students will reflect on their choices and actions in this role play and how they apply to real life.

Students will understand how to help their family and community prepare for a bushfire emergency.

SUCCESS CRITERIA

I can explain what material houses should be built out of to be bushfire safe.

I can list three things that can be done before a bushfire to help protect houses and the community from bushfire.

I can discuss what actions we should take before, during and after a bushfire emergency.

PURPOSE

Climate Warriors has been designed to help engage the next generation in understanding the importance of preparedness against natural disasters due to the effects of climate change.

The map and supporting resources will aid educators to impart on their students a greater knowledge of actions that can be taken to pre-emptively protect wildlife, homes and livelihoods against natural disasters such as bushfires.

STUDENT ACTIVITIES

PRE-LESSON ACTIVITIES (TEACHER ONLY):

Download and print a worksheet for each of your students to assist them in recording their thinking as they progress through the experience. These are available to download via the lesson page on the Minecraft: Education Edition website.

SUGGESTED PRE-LESSON ACTIVITIES (WHOLE CLASS):

Have a classroom discussion to introduce ideas and topics around how we can best prepare for bushfires.

Discussion Prompt: Is there anything we can do as community members to help protect ourselves and our houses from bushfires?

You may want to introduce ideas about climate change, bushfires and how they may be connected.

Discussion Prompt: Do students think that bushfires are more common now than they have been in the past?

PRIOR KNOWLEDGE REQUIRED BY STUDENTS:

Students should already know how to:

- Effectively move within Minecraft
- Interact with NPC's (non-player characters)
- Take photos with the in-game camera
- Caption and export these images using the portfolio

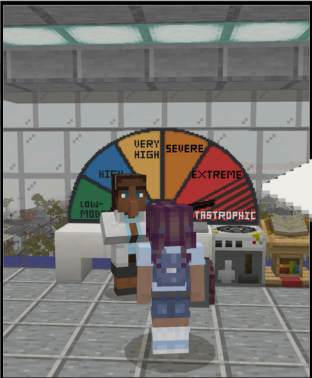


INTRODUCTION

This map is designed to be experienced by students in single player on their own devices with minimal requirement for teacher intervention. It is designed to be completed in around 30-45 minutes. There are three phases to the in-game experience, preparedness, bushfire and recovery, each with multiple activities for students to complete, these are outlined in more detail below.

There are multiple reflection prompts and questions throughout the activity in Minecraft: Education Edition that could be useful as discussion points after students complete the activity, these are highlighted throughout this guide. There are also some suggested activities for students after completing the map to ensure they get the best out of the activity.





STARTING THE LESSON

Students are able to download the world from within the in-game library in Minecraft: Education Edition. It can be found by searching for Climate Warriors, clicking the tile, and then clicking CREATE WORLD.

CREATE WORLD

RESET COMMAND

If at any time a student is lost, or seem to be stuck, you can type the following command on their device to reset the map for them:

`/scoreboard players reset @s`

They will lose all current progress.

PHASE 1

PREPAREDNESS

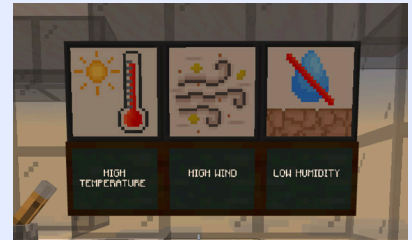
This is the phase that students enter the world in. In this phase students gather information, complete some tests, interpret results and make predictions.

The preparation phase is the key phase for students to reflect on throughout the lesson, as this is where students can have the most impact in their families and communities.



ACTIVITY 1 - FIRE DANGER RATING

ACTIVITY SUMMARY: In this activity students are provided with information about fire danger ratings and they are tasked with helping the Climate Scientist calculate fire danger rating. The data is presented to students in both textual and visual forms as shown in this image.



Students start in Mission Control and should begin by talking to the Climate Scientist NPC, they will outline to students that they need to help predict the fire danger rating. Once students have spoken to the Climate Scientist, they should then talk to each of the other NPC's in this space, the Risk Analyst, Climate Scientist and Data Scientist to get access to further information about fire danger ratings and climate change.



Students are asked to fill in the blanks of the following question "Another ___ degree of warming is predicted to _____ bushfire risk by _____ across Australia compared to today" and it is highly recommended that you discuss this message with students at the end of the activity to support students to understand why bushfire preparedness is such an important need now and in the future.

Once students have the information, they need to calculate the fire danger rating. They should return to the first Climate Scientist and make their prediction, if correct (catastrophic) they will be able to move onto the next activity outside the main building.

ACTIVITY DISCUSSION POINT: What information is used to help communities predict the fire danger rating? Why is this information useful?

ACTIVITY 2A - TEST PLOT 1 MATERIALS

ACTIVITY SUMMARY: In this activity students build a small structure out of wood, steel or brick and test these materials' resistance to fire. Students are asked to reflect on their findings and once they understand which material provides the greatest fire resistance, they move on to the next activity.



Students should talk to the Material Scientist, they outlines what the expectations are with this activity.

Students are to use the blocks within the nearby chest to build a small structure within the test chamber and press the 'Fire' button to see how that material holds up against a fire. There are three different block types, wood, steel and brick. Students should test one material at a time and record their results in their workbook. Wood will burn quickly, steel slowly and brick will not burn. Once students have a structure (bricks) left standing after the test, they will be able to move on and talk to the Fire Safety Officer in test plot 2.

ACTIVITY 2B - TEST PLOT 2 SAFETY MEASURES

ACTIVITY SUMMARY: In this activity students are provided with information in the form of a handbook regarding three safety measures that can be taken before a bushfire emergency that decreases the risk of loss of property. Students must explore the impact of all three safety measures before the experience allows them to move on.

The Fire Safety Officer outlines the task for students and in the nearby chest there is a book outlining the steps community members can take to help protect their house from bushfire.

There are three possible safety measures students need to implement to complete this activity. They are installing roof sprinklers, clearing the surrounding grounds and swapping wooden fences for metal ones. Students are able to test each of these individually or in any combination but will be unable to continue unless all three measures are taken.

Students will need to break the tall grass around the building, build a metal fence from the 'iron bars' found in the chest. There are also four sprinklers in the chest that students must place on the roof of the structure.

Note: The sprinklers must be placed on top of the blue blocks for the game to consider them properly fitted.



PHASE DISCUSSION POINT: What are suggestions you have for someone looking to build a house in a bushfire risk zone in Australia? What material should they use to build it, and what actions should they take to make sure their house is as protected as can be in a bushfire emergency?

After students successfully complete the second test chamber they are told to head towards the helipad, as students climb the stairs and warning message is displayed that a fire has been detected close to town. Students should continue to head to the helipad and talk to the Flight Controller NPC.

PHASE 2

BUSHFIRE

In this phase students take an active role during a bushfire emergency. The key focus for students in this phase, and for discussion, is staying safe during a bushfire emergency and following directions from emergency services personnel.



ACTIVITY 1 - HELICOPTER



ACTIVITY SUMMARY: In this activity students fly a helicopter from Mission Control' across town to the fire station, following the direction of the in-game compass.

Once students have spoken to the Flight Controller they are given permission to fly the helicopter and given instructions to fly the helicopter to the fire station.

If students follow the direction on the compass, they will see a 'blue pillar of light' and this is where they are to land. To exit the helicopter students need to press 'crouch' (shift).



ACTIVITY 2 - FIRE TRUCK

ACTIVITY SUMMARY: In this activity students drive a fire truck to a house and family that need help getting to a safe place. Once the students arrive at the house, they are tasked with driving these people to the evacuation point, the beach.

Upon landing the helicopter at the fire station students will be met by a Firefighter NPC, who informs students that they have had a call from a house at risk. Students head to the fire truck and are met by another Firefighter who explains that students are to drive the fire truck, following the compass direction to the house to help the family leave before the fire gets too close.

Once students arrive at the house, they are informed by a Firefighter NPC that the fire truck and crew will stay behind, but request that the student drive the family (in the car nearby) to the safe zone at the beach.

To help students find there way, there are a series of white light pillars along the road, as well as the compass to follow.



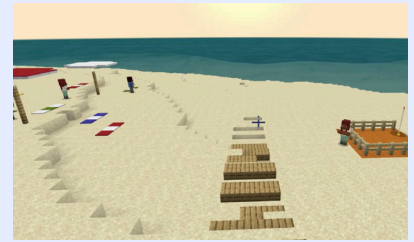
ACTIVITY 3 - KOALA RESCUE

ACTIVITY SUMMARY: Once students arrive at the beach with their evacuees, a volunteer explains that nearby koalas are in danger due to the fire and they need to find and bring one of the koalas back to them. Once the koala is delivered to the volunteer, the bushfire emergency is over and students enter the recovery phase.

Students are met by another firefighter at the beach who informs them that all residents in the area are now safe, however there is a report of a bushfire close, and while the people are safe, there are still some koalas at risk in that area. Students are requested to head to the beach for further instructions.

Down on the beach, to the right of the path down, is a volunteer who is helping with animal rescue. They will let them know that there is one more known and friendly koala, Arlo, that needs saving. The volunteer provides students with eucalyptus leaves to help bring Arlo back. Students head into the nearby bush to find Arlo, when found students 'feed' Arlo the eucalyptus leaves (by right clicking him with the leaves) and he will then follow them back to the flagged area.

With Arlo in tow, when students return to the flagged area they are informed that the fire has been brought under control and the recovery phase can begin. Students are prompted to describe what actions they should take during a bushfire emergency, and then to follow the compass to their next destination.



ACTIVITY DISCUSSION POINT: How do you think wildlife are affected by bushfires, and what can we do to help them recover?

PHASE DISCUSSION POINT: Students are asked to reflect on actions they SHOULD take in a bushfire emergency, and this is likely something that should be discussed with the whole class after the activity is complete to ensure that students understand that the actions taken within this lesson are not necessarily the actions they take in a bushfire emergency. The main discussion should be around staying safe and following any instructions from emergency personnel.

PHASE 3

RECOVERY

In this phase students take an active role in helping the community recover from the bushfire emergency.

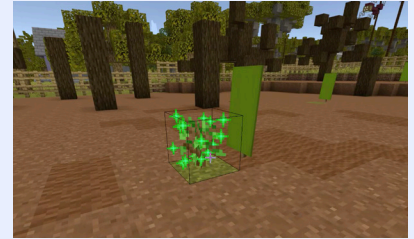


ACTIVITY 1 - REPLANT TREES

ACTIVITY SUMMARY: In this activity students replant a badly burnt area with new trees. Students must plant and grow 10 trees in the area to move on to the next activity by returning to the beach.

When students arrive at their destination a volunteer greets them and asks students to help with replanting trees in a badly burnt-out area. The volunteer provides students with saplings and bonemeal (to speed grow the trees with a 'right click') and students can go and help plant and grow some native trees in the fire damaged area.

Once students have planted trees and grown them, the volunteer thanks them and requests that students head to the helipad near the beach as there are some supplies that need to be delivered to areas in the community to help in the recovery efforts.



ACTIVITY DISCUSSION POINT: Once it is safe to do so, why do you think it is important to replant trees in bushfire impacted areas?



ACTIVITY 2 - SUPPLY DROP

ACTIVITY SUMMARY: In this activity the student supports the community in the recovery efforts by delivering supplies to key areas in the helicopter. The three areas for delivering supplies to are 'further up the beach', the school and then the town hall.

When students arrive back at the beach, near the helipad will be another firefighter NPC who explains that the delivery of food and water to evacuation points is important to make sure community members are safe and well. Students are asked to deliver the supplies (water) further up the beach. Students need to take at least nine water bottles (they can take them all in one trip) in order to be successful in this first delivery.

Upon arrival 'further up the beach' students deliver their water bottles and are able to pick up their next delivery, which will be to the school, of cleaning products. Students must follow the compass to the school. Once students land on the rugby field a Teacher NPC greets them, thanking them for delivering the supplies and asking students to deliver the next batch (food) to the town hall.

When students arrive at the town hall they are met by the Town Mayor who thanks students for all the work they have done before, during and after the fire and explains that students need to head back to Mission Control as they are needed there. There is a 'fast travel' button that will transfer students directly to Mission Control.



ACTIVITY DISCUSSION POINT: What supplies do you think are most important in supporting the recovery of communities affected by bushfire?

PHASE DISCUSSION POINT: What do you think is one of the most important things to help a community affected by bushfire?



LESSON REVIEW



REVIEW

Upon arrival back at Mission Control students are provided with a score and asked to reflect on 3 things they learned while completing the activities, 2 things they could do to help protect their house from a bushfire emergency and 1 thing they would do differently if they attempted the map again.

KEY LESSON DISCUSSION POINT: What can we do as community members to help prepare for a bushfire emergency?.

EVIDENCE OF LEARNING

- Completed worksheet
- After lesson reflections/discussions

CONTINUING THE LEARNING

1. Write a persuasive piece outlining why people should do x, or y, or z, and how that impacts on communities and natural disaster management. (x, y, or z are actions that students had the choice to do/gather information on during the course of the game, and they need to reflect on why these 'actions' are important, and convince others of their importance)
2. Write an instructional piece detailing your evacuation plan for your Minecraft property. What steps should you take on your property before you evacuate, where do you evacuate to?
3. What types of animals/plants may be affected by the fire/disaster, what are some steps you could take to help them before, during, or after a disaster like this?
4. Students are requested to draw/sketch a map for their evacuation plan, this map should cover BOLTSS principles if appropriate to year level.
5. Research project: How might koalas (or other native wildlife) be affected by a fire disaster? What can you do if you find a koala (or other native wildlife) that needs help after a fire disaster?
6. Research project (tree replanting): Research one of the following questions;
 - How much water do trees that are planted need?
 - How much space do they require as they get older?
 - How many are planted and expected to survive?



SUPPLEMENTARY RESOURCES LINKS

CURRICULUM LINKS:

These are available to download via the lesson page on the Minecraft: Education Edition website.

CLIMATE CHANGE:

- <https://www.climatechangeinaustralia.gov.au/en/>

BUSHFIRES:

- <https://www.natgeokids.com/au/discover/geography/physical-geography/what-is-a-bushfire/>
- <https://www.bushfireeducation.vic.edu.au/>
- <https://www.dpi.nsw.gov.au/climate-and-emergencies/bushfires>

WILDLIFE SUPPORT:

- <https://www.wildlifevictoria.org.au/?view=article&id=145:helping-wildlife-during-bushfires&catid=11:wildlife-information>
- <https://www.rspcaqld.org.au/blog/wildlife-conservation/securing-the-future-for-the-native-wildlife-from-bushfires#:~:text=RSPCA%20Qld%20are%20the%20only,donations%20follow%20the%20recent%20fires.>
- <https://www.wires.org.au/wildlife-info/wildlife-factsheets/bushfire-factsheet>
- <https://www.environment.nsw.gov.au/topics/animals-and-plants/native-animals/helping-wildlife-in-emergencies>
- <https://www.nrma.com.au/koala/>

