

Talking about the Bush Fire Crisis in Design & Technologies

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In 2019 and 2020, record-breaking temperatures and months of severe drought fuelled a series of massive bush fires across Australia. Tragically lives have been lost, and more than 10 million hectares of bush, forest and parks across Australia has burned.

As teachers, we want to help our students cope with this crisis, and ensure that our school communities are engaged in the discussion. The Design & Technologies curriculum provides this opportunity, and empowers young people to consider how we can act to tackle issues related to the climate crisis. Here are a few great resources and good news stories you can use with your classes.

Wildlife Boxes



In response to the devastating effects of the fires on our native wildlife, **Liz Keep** from Peninsula Grammar coordinated an invaluable D&T program for schools. Following the call out for help from affected communities, Liz set up a project for her Year 9 and 10 classes to build wildlife boxes. She realised this was a great opportunity to involve more young people, so spread the word to schools throughout Victoria to take part.

The wildlife rescue teams have all the measurements and patterns for each of the animals, specific hole sizes for specific birds, for bats and possums. Liz gets her students to choose an animal they are building for and research the animal, its habitat, breeding etc as their planning. She has shared her wildlife box plans as well as a draft letter to Bunnings, as they have been donating materials for these programs throughout Australia.

[Wildlife Box Plans](#)
[Draft Bunnings Letter](#)

How to Talk to Students about the Bush Fire Crisis



Australia's Education Minister has highlighted the importance of schools supporting students in the aftermaths of the bushfires. Even students not directly affected by the fires may feel traumatised by the images and stories shared on the media. Here are some articles that may help:

[**The Conversation - a Familiar Place among the Chaos**](#)

[**The Conversation - Bush Fire Education is too Abstract**](#)

[**The Sector - Bush Fire Crisis Hints & Tips: Supporting Children, Community and Educators**](#)

[**SchoolStrike4Climate - Bushfire Crisis Guide**](#)

[**Zoos Victoria - Talking with Young People about Bush Fires**](#)

Wildlife Pouches



The fires are estimated to have killed one billion animals so far this season. As well as new habitats for wildlife, people have also been creating joey pouches, bat wraps and koalla mittens for the injured wildlife being cared for by rescuers. You can read more on this story [**HERE**](#).

The [**Animal Rescue Craft Guild**](#) has published a range of patterns, with guidelines for the needs of different species - browse them [**HERE**](#) and get your students making!

Indigenous Fire Management



The traditional owners of these lands have managed and mitigated fire risk for millennia through their specific knowledge of local ecosystems and carefully controlled burnings. As Australia suffers through drought, heatwaves and devastating bushfires, more people are turning to practitioners of indigenous fire management to deal with the crisis.

Here are a range of stories about Indigenous fire practices:

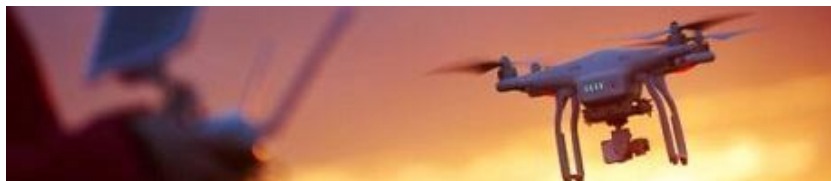
[Creative Spirits - Aboriginal Fire Management](#)

[ABC News - Indigenous Fire Practices](#)

[Al Jazeera - How Australia's Indigenous People can help the Country Fight Fire](#)

[The Mandarin - Tasmania turns to Traditional Methods for Bushfire Management](#)

How Engineers can Protect against Bush Fires



Engineers play an important role in preventing and protecting against bush fires. Share these articles with your students:

[Create - 3 ways Engineers are taking steps to protect people from bush fires](#)

[Create - Five ways technology will change the way we fight bushfires](#)

[La Trobe on the front line of bush fire protection](#)

[Drone Technology a Valuable Asset in Bush Fire Mitigation](#)

Firefighting Uniforms and Equipment



Read more about the materials and technologies used in the equipment of fire fighters:

[Interesting Engineering - Technological advances to firefighting to the next level](#)

[NSW Fire & Rescue - Uniforms and Equipment](#)

[Tools & Equipment - Kevlar V. Nomex Filament Yarns](#)

Lorimer Marshal's Award-winning FADER System



This is a great time to look back on the work of **Lorimer Marshal**, a student of VCE Systems Engineering from Lavalla Catholic College. During Black Saturday, Lorimer's family were forced to evacuate from their Gippsland home. When he began researching his Year 11 project, he wanted to tackle the issue of early bushfire detection. His response was the **Fire, Analytics, Detection and Emergency Response (FADER)** system. FADER uses systems to measure wind speed, direction, smoke and infrared to detect fires early, and then messages the nearest fire station to alert them to the threat.

FADER was displayed in the Top Designs 2018 exhibition at Melbourne Museum. Click [**HERE**](#) to read more about Lorimer and his work.

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