

Education
Building Disaster Resilience in Young People



Bushfire Patrol

Teachers' Guide Years 4 and up
Building Disaster Resilience in Young People



FOR A SAFER STATE

Contents

Contacts.....	2
About Bushfire Patrol.....	3
Adding ‘disaster’ to your schools’ resilience education program.....	3
Links between home, school and community.....	4
Children and young people’s experience with fire.....	5
Children and young people with a fascination for fire.....	5
Bushfire Patrol Learning Outcomes.....	5
Modules.....	6
Adapting Bushfire Patrol for high school students.....	7
School and home bushfire plans.....	8
Enriching the program (inviting guests and other options):.....	9
Map of DFES Regions.....	10
Parent/Carer Information Sheet – FAMILY BUSHFIRE PLAN.....	11
Additional Resources and Useful Weblinks.....	12
Curriculum Links.....	13
Module 1: Understanding the elements of fire.....	
Module 2: Causes of bushfire / Bushfire Weather.....	
Module 3: Fire Danger Ratings / Planned Burning.....	
Module 4: What is your risk?.....	
Module 5: Bushfire Plans / Fire Alerts and Warnings.....	

Contacts

Department of Fire and Emergency Services

Community Preparedness Directorate
Emergency Services Complex
20 Stockton Bend
Cockburn Central, Perth WA 6164

For all enquiries:

Call Community Preparedness: (08) 9395 9816

Email: communitypreparedness@dfes.wa.gov.au

Fourth Edition 2023

About Bushfire Patrol

Bushfire Patrol was developed for teachers to use in classrooms across the Western Australian (WA) Southwest Land Division (see Figure 1) and is suitable for students from Geraldton through to Esperance. [North West Bushfire Patrol](#) is a similar resource, for classrooms in North West WA.

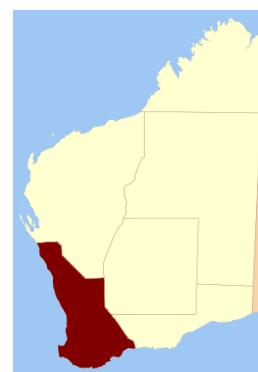


Figure 1 South West Land Division

The overarching outcomes of *Bushfire Patrol* is to give students the knowledge and understanding of their local bushfire risk; and the skills and confidence to take protective actions before, during and after a bushfire emergency. *Bushfire Patrol* empowers children and young people to share what they have learned with their families, fellow students and broader school community.

Adding ‘disaster’ to your schools’ resilience education program

Children and young people are recognised as a vulnerable group in a world in which we are experiencing a global increase in disasters¹. The 2021 Children’s Climate Risk Index (CCRI)² indicates that almost every child on Earth is exposed to at least one climate and environmental hazard, such as bushfires, heatwaves, cyclones, severe storms, earthquake and or tsunami.

Bushfire Patrol is a Disaster Resilience Education (DRE)³ program aiming to provide opportunities for children and young people to identify and solve problems with respect to their own bushfire preparedness, at school and at home. A national survey⁴ of children and young people in 2020 found that those surveyed felt they had learnt more about earthquakes in school than the natural hazards that present the most risk to them, that is, bushfire and flood. Children and young people surveyed wanted to know more about the actions they could take to be better prepared for bushfire and flood; and to be able to look after themselves, others and animals.

Bushfire education traditionally fits the Human and Social Science (HASS) curriculum in Year 5 Geography, with alerts and warnings covered in Year 6 in Science as a Human Endeavour. However, bushfire education is relevant to students across all years of schooling as part of your school’s resilience education program within Health and Physical Education (HPE) and additionally within those areas focusing on ‘place’ and ‘civics and citizenship’ within the HASS curriculum.

¹ UNESCO & UNICEF, 2014. *Towards a Learning Culture of Safety and Resilience: Technical guidance for integrating disaster risk reduction in the school curriculum*. New York: UNESCO

² UNICEF, 2021. [The climate crisis is a child rights crisis: Introducing the Children’s Climate Risk Index.](#)

³ Australian Institute for Disaster Resilience (AIDR, 2021). *Disaster Resilience Education for Young People Handbook* https://knowledge.aidr.org.au/media/8874/aidr-handbook_dreyp_2021.pdf

⁴ Australian Institute for Disaster Resilience (AIDR, 2020). *Our World Our Say: National survey of children and young people on climate change and disaster risk.*

From early childhood to adolescence, children learn about safe and unsafe behaviours and who can help them in an emergency; what strategies they can implement to keep themselves safe in different situations, and, put new skills into practice. They examine how to respond when peers are encouraging them to take unnecessary risks; and, collaborate with their classmates to come up with strategies they can use in emergencies or when they feel unsafe.

All of these things form part of bushfire education and are included in Disaster Resilience Education (DRE) programs such as *Bushfire Patrol*.

Links between home, school and community

Research into children and young people's experience of bushfire across Australia shows that the impacts of a bushfire disaster can be significantly reduced if communities are well prepared and equipped with the knowledge and skills to respond before and when a bushfire occurs.

'This isn't just for young people, but I think they need to know the fire plans. Because there were a lot of people who did not have a fire plan and were just panicking.'

(NSW Children & Young People's Experience of Disaster Report, 2020)

The NSW *Children & Young People's Experience of Disaster* report (2020)⁵ found that young people want to be involved in bushfire planning and want to know that their parents, carers, school are well prepared and can remain calm in a bushfire emergency.

Adults (at school and at home) can provide opportunities for children and young people to be involved and encouraged to contribute to bushfire planning from as young as six years old. Meaningful activities can include participating in bushfire drills where children and young people take an active role, for example, putting together an emergency kit and/or their own personal 'grab bag'. When given the chance to contribute to bushfire planning and executing the plan, children and young people are less likely to be anxious and more likely to be prepared for a bushfire emergency.

Bushfire Patrol provides a link between your school's bushfire risk management plan, your students' own family bushfire survival plans and uses a whole of school / community approach to help build disaster resilience across all years of schooling. It provides opportunities for schools to link into community initiatives such as Bushfire Ready; connect with their local government, community groups and their local fire and emergency services.

⁵ Office of the Advocate for Children & Young People (NSW, 2020). *Children & Young People's Experience of Disaster*.

Children and young people's experience with fire

Each of your students will have different experiences with fire. Some may be confident in lighting fires for cooking and heating purposes when camping or at home; and others will have little to no fire knowledge or skills. It helps to find out if any of your students have experienced the impact of bushfire as they could find this topic distressing.

Children and young people with a fascination for fire

Some children and young people are fascinated by fire and either light unsafe fires or endanger themselves by getting close to fire. The DFES Juvenile & Family Fire Awareness (JAFFA) Program is available to support these children (aged 6-16) and their families.

The program is delivered in the family home by JAFFA-trained firefighters. JAFFA includes an interview with the parent(s) and child, as well as a personalised education session that helps the young person understand the consequences of playing with fire. JAFFA receives referrals from schools, parents/carers, WA Police and Juvenile Justice. Contact JAFFA on 9395 9488; email jaffa@dfes.wa.gov.au or visit www.dfes.wa.gov.au/jaffa to find out more.

Bushfire Patrol Learning Outcomes

The outcomes of *Bushfire Patrol* are:

1. Students raise their awareness of bushfire and bushfire risk, including the consequences of bushfire, by:
 - Discussing safe and unsafe behaviours with fire
 - Recognising that fire is a tool for adults to use (or those who hold the knowledge and skills)
 - Differentiating safe and unsafe times for adults to light fires (unsafe times increase the risk of bushfire)
 - Discovering the impact of deliberately lit bushfires
2. Students develop skills to help them respond to a bushfire event by:
 - Having a set of strategies and understanding of personal behaviours to stay safe when there is a bushfire
 - Assessing risk of bushfire based on Fire Danger Rating and location
 - Being able to locate and explain what bushfire alerts and warnings mean in terms of bushfire risk
 - Practising the school's bushfire plan (this may include appraising the plan and making recommendations to improve the plan).
 - Preparing and/or practising a family bushfire plan using the My Bushfire Plan App.
3. Students communicate what they have learned by:
 - Presenting their findings and ideas in a written form (a report) or oral, visual or digital presentation to a specific audience.

Modules

Bushfire Patrol contains five modules.

Module One:	Understanding the elements of fire
Module Two:	Causes of Bushfire / Bushfire Weather
Module Three:	Fire Danger Ratings / Prescribed Burning
Module Four:	What is your Risk?
Module Five:	Bushfire Plans / Fire Danger Warnings

Each module is structured as illustrated below:



**Module: Title of Module
Subtitle**

About this lesson

- Overview of the lesson

Background information

- Information needed to teach the lesson or complete activities
- May include links to online content, including images and video

Key messages

- Key messages featured in the module

Learning outcomes

- Student learning outcomes

Things you will need

- What you will need to gather or organise for students to complete all of the module

Activity #:

- Each module contains a number of activities

Extension:

- Opportunities for students to apply the information further or extend their knowledge and understanding

In the community:

- Opportunities for students to engage with their school community, home or local community and demonstrate what they have learned

Figure 2 Structure of each module

Adapting Bushfire Patrol for high school students

This resource was initially developed for students in Years 5 – 6 but can easily be adapted to suit students from Year 4 up to Year 12.

The activities listed below address key DFES messages and include understanding bushfire risk, bushfire behaviour, fire danger ratings, bushfire alerts and warnings, where to find information (emergency.wa.gov.au), understanding your school bushfire plan and making and practising a home bushfire survival plan.

Module One activities

- 1.1-1.4 Fire triangle
- 2.2, 2.3, 3.1, 3.2 Campfire safety

Module Two activities:

- 1.3 Fire progression
- 2.1, 2.3 How fires can burn and spread

Module Three activities:

- 1.1-1.5 Fire Danger Ratings
- 3.0-3.3 Total Fire Bans (high school students)

Module Four activities: *What is your risk?*

- 1.1-1.3 Map of Bushfire Prone Areas
- 2.3 Know your school's bushfire plan
- 3.3, 3.4 Emergency kits and personal grab bags

Module Five activities: *Bushfire Plans, Alerts and Warnings*

- 1.1 My Bushfire Plan
- 2.2-2.3 Alerts and Warnings

Short for time? If you have only time for one or two lessons, these are the most important messages:

- A small fire can become a big fire very quickly. Call 000 for fire so the fire can be extinguished quickly.
- Bushfire plans save lives. Have a bushfire plan. Download the My Bushfire Plan App and work with your household/family put together and practise your bushfire plan. Include in your plan where you will go if there is a bushfire in your area.
- Know where to find accurate information about a bushfire. The accurate source for emergency alerts and warnings is Emergency WA (emergency.wa.gov.au). Emergency WA also includes information on Bushfire Danger Ratings, Total Fire Bans, planned burns and information about floods, cyclones and having hazards.
- Leave early. Do not wait for an emergency warning or a text to tell you when to leave.

School and home bushfire plans

If your school is in or near a designated bushfire prone area, bushfires are a real risk to you, your students, your school buildings and grounds; as well as homes and infrastructure within your local community, including your students' homes. But you don't have to live close to the bush at risk. Burning embers can travel up to 5km or more ahead of a fire front, each one capable of starting a spot fire.

Many government schools at risk of bushfire are included on the Department of Education's Bushfire Zone Register and are required to have a Stand-alone Bushfire Emergency Plan. As over 90% of Western Australia is at risk of bushfires, a quick look at the DFES [Map of Bush Fire Prone Areas](#) is a good visual to show children and young people to help them understand their school, home, or local community risk⁶.

Having school and home bushfire plans are our greatest defence for students to stay safe in a bushfire emergency. It's a good idea to organise a whole-of-school bushfire drill when students are doing these modules. This helps cement the need to understand bushfire risk and the things we can do to keep ourselves safe. It's also an opportunity to link what students have learned at school and transfer this knowledge to the home environment by developing a bushfire plan at home.

A home bushfire plan can be created in under 15 minutes using the [My Bushfire Plan](#) website or companion App. The App provides one place to prepare, store, print and update a bushfire survival plan anytime, from any device. Plans can be digitally shared with the whole family.

Module Five (Responding to Bushfire) requires students to complete a My Bushfire Plan with their families and share their plan with their class. Many will already have a plan, so this activity provides the opportunity to share their plans and show how well they know their family's plan. A letter to send home or email to parents/carers is provided on page 11 of this resource.

If a student's family is unwilling to engage in this activity, students can still be encouraged to create their own *My Bushfire Plan* on their own.

⁶ Over 400 government schools in bushfire prone areas are on the Department of Education's Bushfire Zone Register. A DFES Bushfire Risk Management Liaison Officer provides advice to government schools on bushfire plan development. It is not the role of career firefighters to provide assistance in bushfire planning. Non-government schools may need to employ a fire engineer (or other expert) to assist them with their bushfire plans.

Enriching the program (inviting guests and other options):

Inviting guests into the classroom is a great opportunity for students to ask questions of an expert. Students can gain a better understanding about local bushfire risks in their community; cultural and planned burning practices; environmental risks to plants, animals and the places they love; risks to homes, other buildings and infrastructure; and are able to share their own bushfire knowledge, skills and plans.

When inviting guests, communicate clearly with them before they visit to ensure they understand what you require and what they can expect. It may even be helpful to provide them with a list of students' questions if possible.

Guests can include:

- Local fire brigade (Career or Volunteer Fire and Rescue Service, Bushfire Brigade or Volunteer Fire and Emergency Service). Visit <http://www.dfes.wa.gov.au/contactus> to find links to DFES Offices and Fire and Rescue Service Stations⁷. Contact your local council or shire office for Bush Fire Brigade contact details.
- Local Aboriginal Elders to provide information about the seasons and traditional burning practices, as well as the importance of Country.
- Local government representative (Community Emergency Services Manager, Fire Control Manager or Ranger)
- Parks and Wildlife volunteers to discuss impact of bushfire on native animals and habitats. (Visit the Department of Biodiversity, Conservation and Attractions).
- Staff and parents who can share their own bushfire experiences and bushfire plans.
- Students from another school who have been through bushfire and are willing to share their experiences and to answer questions.

Other ways to further enrich the program include:

- A whole of school bushfire drill
 - Students could run the bushfire drill
 - Students could complete a critical analysis of the schools' bushfire plan and drill; suggesting improvements and presenting their ideas to staff
- Extension activities where students plan their own investigation and present their findings to an audience.
- Hosting an event where students can communicate what they have learned with their families, other students and broader school community, as well as guests who have formed part of their learning journey.

⁷ Career fire stations serve most of the Perth metropolitan area including Mandurah and Rockingham and the regional centres of Geraldton, Kalgoorlie, Bunbury and Albany. Firefighters visit all Year 3 classes to deliver our Home Fire Safety program. Bushfire education visits are additional to their workload and visits may be limited.

Map of DFES Regions

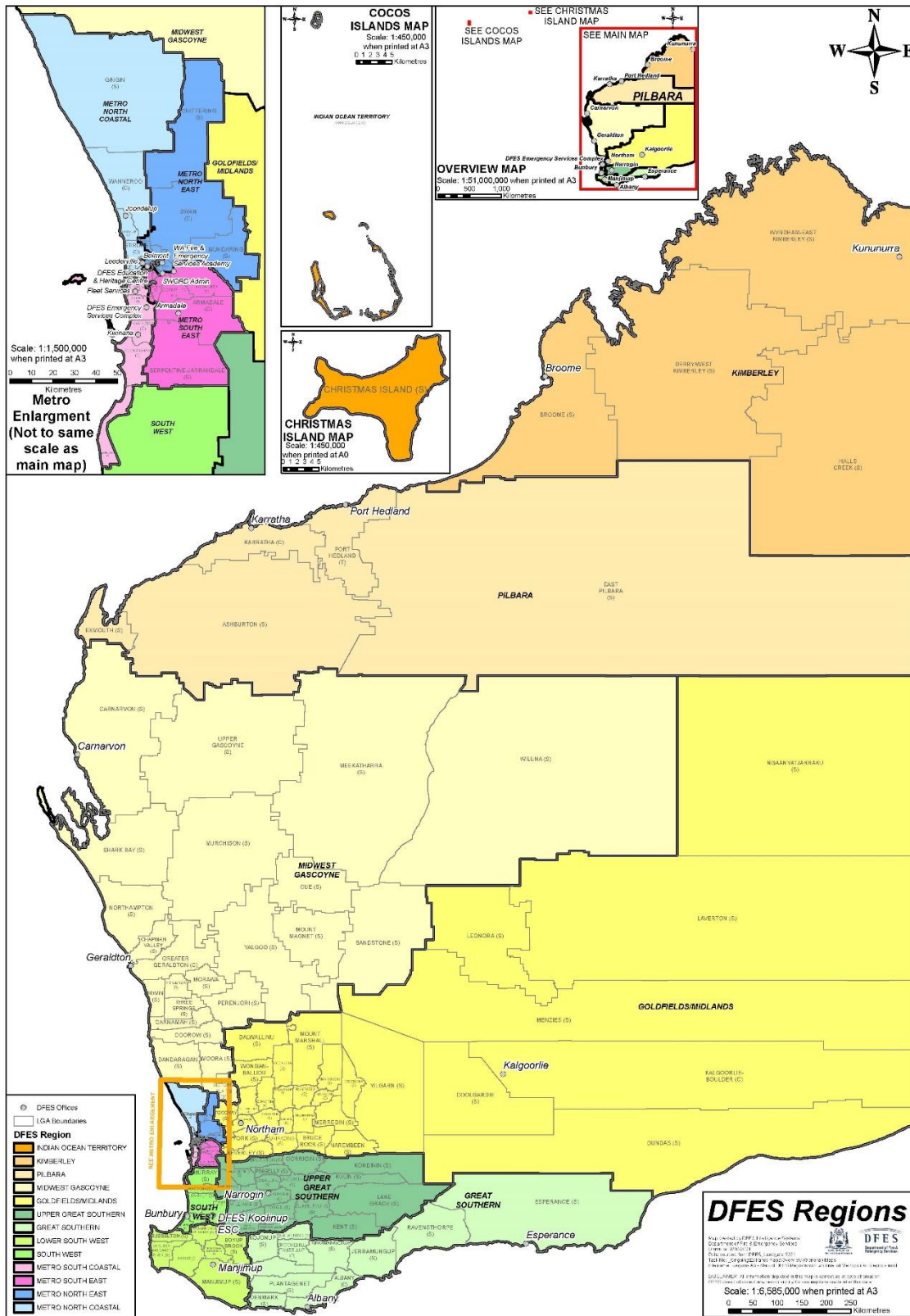


Figure 3 Map of DFES Regions



FOR A SAFER STATE

Parent/Carer Information Sheet – FAMILY BUSHFIRE PLAN

Dear Parent/Carer

Our students are learning about bushfires in Western Australia, using a Department of Fire and Emergency Services (DFES) resource, [Bushfire Patrol](#). They have been asked to:

- **Complete a bushfire plan with their families (15 minutes).**

If you already have a prepared bushfire plan, please give your child the opportunity to go through your plan with you. If you can: test or practise some, or all of the plan with them.

How to make a bushfire plan

To get started, visit mybushfireplan.wa.gov.au or download the **My Bushfire Plan** App.

- The best plan is one that everyone in your household knows and has practised.
- Practising your bushfire plan helps reinforce the messages learnt in class, as well as increase each of your family members' safety before and during the bushfire season.

Where to find accurate bushfire information

- You can find Bushfire Alerts and Warnings, Fire Danger Ratings and information about Total Fire Bans at Emergency WA emergency.wa.gov.au.

Kind regards

'73% of children and young people (surveyed) in Australia want to know how to plan and prepare for bushfire and other natural hazards.' (*Our World Our Say Youth Climate & Disaster Report, World Vision, 2020*)

'Children and young people want their families to have clear emergency plans and want to know where they can get accurate information before a bushfire occurs.' (Children & Young People's Experience of Disaster, Office of the Advocate of Children & Young People, NSW, 2020)

Additional Resources and Useful Weblinks

Department of Fire and Emergency Services (DFES)	www.dfes.wa.gov.au
DFES Alerts and Warnings	www.emergency.wa.gov.au
DFES Fire Danger Warnings (Emergency WA)	
DFES Bushfire Publications	www.dfes.wa.gov.au/safetyinformation/fire/bushfire/Pages/publications.aspx
Emergency Alert	www.emergencyalert.gov.au/
Bureau of Meteorology (BOM)	www.bom.gov.au
BOM Forecast Areas Map	www.bom.gov.au/wa/forecasts/map.shtml?ref=hdr
BOM National Weather Warnings	www.bom.gov.au/australia/warnings/index.shtml
Department of Biodiversity, Conservation and Attractions (DBCAs)	www.dpaw.wa.gov.au/management/fire
Triple Zero Challenge	www.kids.triplezero.gov.au
Disaster Resilience Education for Young People (Australian Disaster Resilience Handbook Collection) – Australian Institute for Disaster Resilience (AIDR) (2021)	https://knowledge.aidr.org.au/collections/handbook-collection/

Curriculum Links

HUMANITIES AND SOCIAL SCIENCES: Civics and Citizenship			
Year	Strand (Knowledge and Understanding)	Content Descriptors	Module
4	Government and Society	<ul style="list-style-type: none"> The purpose of government and some familiar services provided by local government 	Module 3 (Fire Danger Ratings) Module 4 (What is your Risk?) Module 5 (Bushfire Warnings)
5	Roles, responsibility and participation	<ul style="list-style-type: none"> How regulations and laws affect the lives of citizens 	Module 3 (Fire Danger Ratings)
		<ul style="list-style-type: none"> Why people work in groups to achieve their aims and functions, and exercise influence, such as volunteers who work in a community group 	Module 2 (Causes of Bushfire) Module 3 (Fire Danger Ratings; Prescribed Burns) Module 5 (Bushfire Plans and Bushfire Warnings)
HUMANITIES AND SOCIAL SCIENCES: Geography			
Year	Strand (Knowledge and Understanding)	Content Descriptors	Module
4	The Earth's environment sustains all life	<ul style="list-style-type: none"> The importance of environments to animals and people, and different views on how they can be protected 	Module 3 (Fire Danger Ratings; Prescribed Burns)
5	Factors that shape the environmental characteristics of places	<ul style="list-style-type: none"> The way people alter the environmental characteristics of Australian places 	Module 3 (Fire Danger Ratings; Prescribed Burns)
		<ul style="list-style-type: none"> The impact of bushfires on environments and communities and how people can respond 	Module 1 (Elements of Fire) Module 2 (Causes of Bushfire) Module 3 (Prescribed Burning) Module 4 (What is your Risk?) Module 5 (Bushfire Warnings)

Note: Humanities and Social Sciences skills are consistent across all lessons

SCIENCE			
Year	Strand (Science Understanding)	Content Descriptors	Module
4	Earth and space sciences	<ul style="list-style-type: none"> • Earth's surface changes over time as a result of natural processes and human activity 	Module 1 (Elements of Fire) Module 2 (Causes of Bushfire) Module 3 (Prescribed Burns)
5	Chemical Sciences	<ul style="list-style-type: none"> • Changes to materials can be reversible; or irreversible 	Module 1 (Elements of Fire) Module 2 (Causes of Bushfire) Module 3 (Fire Danger Ratings; Prescribed Burns)
6	Earth and Space Sciences	<ul style="list-style-type: none"> • Sudden geological changes and extreme weather events can affect Earth's surface 	Module 2 (Bushfire Weather) Module 3 (Fire Danger Ratings)
Year	Strand (Science as a Human Endeavour)	Content Descriptors	Module
4	Use and Influence of Science	<ul style="list-style-type: none"> • Science knowledge helps people to understand the effect of their actions 	Module 1 (Elements of Fire) Module 2 (Causes of Bushfire) Module 3 (Fire Danger Ratings) Module 4 (What is your Risk?) Module 5 (Bushfire Warnings)
5/6	Use and Influence of Science	<ul style="list-style-type: none"> • Scientific knowledge is used to solve problems and inform personal and community decisions 	Module 1 (Elements of Fire) Module 2 (Causes of Bushfire) Module 3 (Fire Danger Ratings) Module 4 (What is your Risk?) Module 5 (Bushfire Plans and Bushfire Warnings)

HEALTH AND PHYSICAL EDUCATION

Year	Strand (Personal, Social and Community Health)	Content Descriptors	Module
4	Being healthy, safe and active	<ul style="list-style-type: none"> • Personal behaviours and strategies to remain safe in uncomfortable or unsafe situations, such as: <ul style="list-style-type: none"> ○ Being alert and aware of unsafe situations ○ Knowing who or where to go for help in the community • Strategies to ensure safety and wellbeing at home and at school • Strategies to cope with adverse situations 	Module 1 (Elements of Fire) Module 3 (Fire Danger Ratings; Prescribed Burns) Module 4 (What is your risk?) Module 5 (Bushfire Plans and Warnings)
5	Being healthy, safe and active	<ul style="list-style-type: none"> • Strategies that promote a safe lifestyle 	Module 3 (Fire Danger Ratings) Module 4 (What is your risk?) Module 5 (Bushfire Warnings)
6	Being healthy, safe and active	<ul style="list-style-type: none"> • Criteria that can be applied to sources of information to assess their credibility • Situations in which emotions can influence decision-making: in peer group, with friends, with family. 	Module 2 (Bushfire Weather) Module 3 (Fire Danger Ratings)
7	Being healthy, safe and active	<ul style="list-style-type: none"> • Help-seeking strategies that young people can use in a variety of situations • Strategies to make informed choices to promote safety. 	
8	Being healthy, safe and active	<ul style="list-style-type: none"> • Skills and strategies to promote physical and mental health safety and wellbeing in various environments. 	
9	Being healthy, safe and active	<ul style="list-style-type: none"> • Skills to deal with challenging or unsafe situations • Actions and strategies to enhance safety – responding to emergency situations 	

Cross Curriculum Subjects

Mathematics: Measurement and Geometry, Statistics and Probability

English: Creating Literature, Expressing and Developing Ideas, Interacting with Others, Creating Text

General Capabilities

Literacy, Information and communication technology capability, Critical and creative thinking, Personal and social capability, Ethical understanding, Intercultural understanding

Cross Curriculum Priorities

Aboriginal and Torres Strait Islander histories and cultures, Sustainability



Module One: Bushfire Behaviour

Understanding the elements of fire

About this Lesson

Students take part in a collection of activities designed to give them a basic understanding of bushfires. They are introduced to the science of fire and learn that a fire needs heat, fuel and oxygen to burn. Students use their new-gained knowledge of fire science to determine the safest way to put out a campfire.

Background information

Fire is a high temperature, chemical reaction that releases energy as heat and light. Another word often used is *combustion*. Fire requires three elements to be present for it to ignite and continue to burn: **heat**, **fuel** and **oxygen**. The [fire triangle](#) is a simple model for understanding the necessary ingredients for fire.

A source of heat is required to bring fuel to a temperature where it will ignite (or catch fire). Heat can be transferred by:

- Radiation – where heat is transferred (or it moves) from the fire to a nearby object (for example, heat from an electric bar heater igniting clothes that aren't touching the heater but are too close)
- Conduction – where heat is transmitted (or it spreads) from one object to another by direct contact (for example, a hot car exhaust touching grass and the grass catching on fire)
- Convection - where heat is carried through air currents (for example, in a house fire, hot air currents move around the house often igniting more combustible materials).

Fuel is the substance that can ignite and burn (or is *flammable*). Fuel can be either solid (e.g., vegetation), liquid (e.g., oils, petrol) or gas (e.g., LPG).

The oxygen comes from the atmosphere and the air around us. This means on hot, windy days, already dry vegetation will dry even more so, creating an environment for bushfire to occur.

A fire can be prevented or extinguished by removing any one of the elements in the fire triangle.

The [fire tetrahedron](#) represents the addition of a component – the chemical chain reaction. Once a fire has started, the resulting chain reaction sustains the fire and allows it to continue until at least one of the elements of the fire is removed.



Firefighters use a combination of methods to put out a fire. They use water to lower the temperature of the fuel to the point where burning stops. Water also helps smother the fire by keeping oxygen away from it. Firefighters can remove the fuel or use foam and shoveling techniques to smother and remove the supply of oxygen to a fire.

Humans cannot control the wind or temperature. The only thing we can do is remove or reduce fuel.

Everyone who lights a campfire should know how to build and extinguish a campfire safely. If a built-in fireplace is provided in your camping area, it should be used, rather than building a campfire from scratch. Read [Campfire Safety](#) to find out DFES recommendations on what to do before you light a fire; looking after your campfire; basic campfire safety; building a safe campfire and putting your campfire out.

A campfire will go out if enough water is poured on it so that there is not enough heat to keep the fire burning. If a campfire is left to burn out by itself (when you go to bed or leave your campsite) there is the risk of wind picking up the smouldering remains of a fire and transferring the embers to nearby fuel (leaf litter, twigs and tree branches), creating an uncontrolled fire. Soil or sand can be used to smother a fire of oxygen; however, fires can still smoulder under the soil and stay hot for more than eight hours. A fire put out with soil or sand is still a danger to anyone walking in the area once you have gone and can cause injury to young children who are unable to see the smothered (still hot) coals. If smothered with dirt, the campfire's ignition point temperature is not lowered and can reignite easily when oxygen and fuel are made available (i.e., the soil is disturbed and the heat of the fire allows it to reignite).

Key messages

- Fire is a high temperature chemical reaction involving fuel, oxygen and heat.
- For a fire to be extinguished, one or more of the elements of fire must be removed.
- There are safe ways to build a campfire, which can reduce the risk of bushfire.
- Water is the safest method you can use to extinguish a campfire.

Learning outcomes

- Students understand that a chemical reaction involving fuel, heat and oxygen is needed for a fire to start and that the removal of one or more of these elements will stop it or put it out.
- Students understand how to build a safer campfire.
- Students understand that water is the safest method to use when extinguishing a campfire.



Things you will need

- **Introduction to bushfires** slideshow
- Electronic white board
- [Fire Triangle image](#)
- 3 candles (tea lights)
- a non-flammable surface (plate) to sit the candles on
- matches or lighter to light the candles
- a small container (cup) containing water
- a glass
- **Introduction to bushfires** slideshow
- **Bushfire Misconception** slideshow or printed cards
- **Campfire Safety** slideshow
- **Find the Campfire Dangers** Worksheet
- **Fire Tetrahedron** worksheet

Tuning in activity: *Introduction to bushfire*

1. Use the **Introduction to bushfires** slideshow to prompt a class discussion about bushfire.
2. Brainstorm everything students know about bushfire, don't know about bushfire and what they would like to find out. Use the **Bushfire Misconceptions** slideshow (or cards printed from provided PDF) as a prompt.
3. Display information in a chart (similar to below) which can be referred to and updated as students work through each module. This can be a class, group, pair or individual chart.

What we know	What we don't know	What we would like to find out

4. Create a class wall chart to display words and terms that are used when learning about bushfire. A good place for teachers to start is to visit the DFES website dfes.wa.gov.au/bushfire.

Activity One: *The fire triangle (Teacher demonstration)*

1. While lighting a candle, discuss candle safety and safety controls. Ask the students to think about what the candle needs to keep burning, (fuel, oxygen, heat).
2. Show students the [Fire Triangle image](#). Ask students to use the image to think about ways to stop the candle burning.
 - By putting water on the candle, you are taking away the heat.
 - By smothering the candle, you are taking away the oxygen.
 - When the candle has no more wax and burns right to the end there is no more fuel.

Demonstrate each situation as you go, using water to put out the first candle and a glass to smother the second candle. You may not have time to allow the third candle to burn until it self-extinguishes. Please note: Never leave candles unattended – talk about how adults should always supervise burning candles.



- Each student uses the **Fire Tetrahedron worksheet** to make a paper model. Use to reinforce what was demonstrated. Refer to the tetrahedron with Activities 2 & 3 and the Extension activity.

Activity Two: *The missing element*

- Discuss the following situations with reference to the fire tetrahedron. Discuss the elements of fire and fill in the gaps in the table. (See teacher Answer Sheet for supporting information).

Fire	Fuel	Oxygen	Heat
Match struck on the side of a match box		Air	Friction of match on match box; flame
A tree is struck by lightning	Tree	Air	
A lit cigarette thrown out of a car window onto dry grass		Air	Lit cigarette
Sun shines through a glass bottle onto dry grass	Dry Grass	Air	
A pile of wood chip mulch ready to be shoveled onto the garden starts to burn	Mulch	Air	

- Think about different ways firefighters put out fires and which part of the fire triangle each method stops. (Water is used to take away the heat, firebreaks are created to remove fuel and foam is used to smother the fire and remove oxygen).

Activity Three: *A safe campfire*

- Discuss campfires and why we have them (e.g., for light, warmth, connection and cooking).
- Watch the **Campfire Safety** slideshow. It shows us how to make a safe campfire. Make a list of the key messages from the slideshow. Check them against this list:
 - Adults must supervise a campfire at all times
 - Use the fireplace provided
 - If there are no fireplaces, make a border around your fire using large rocks
 - Create a clearing of 3 metres around the fire (including above the fire)
 - Keep tents and camping equipment at least 3 metres away from the fire
 - Keep your campfire just big enough for cooking and for keeping warm
 - Keep water nearby
 - Put out your campfire completely with water before going to bed or leaving the campsite
- Find the fire hazards using the **Find the Campfire Dangers** worksheet (individually or as a group). Discuss why each fire hazard is unsafe.



Extension – Putting out a campfire

Use the table from Activity One to explain the elements of fire, in terms of a campfire.

Fire	Fuel	Oxygen	Heat
Campfire			

1. Consider these questions:
 - How would you remove the fuel to put out the fire? (Let the fire burn out by itself)
 - How would you remove the oxygen to put out the fire? (Smother it with dirt)
 - How would you remove the heat from the fire and put it out? (Pour water over the fire)
2. Discuss any limitations or risks for using each method.
 - If you let the fire burn out (the wind could lift small hot embers onto dry fuel outside of the fire pit and start a fire)
 - If you smother the fire with dirt (the fire might look like it is out, but the heat isn't removed – someone could get burnt).
 - If you put a fire out with water (the water removes the heat from the fire and is the safest method to put out a campfire).

In the Community

- Plan, draft and create a **Campfire Safety Checklist** in a format appropriate for its purpose and audience. (For example, present it as a list to share and discuss with another class; a poster to post around the school; as an article to publish in your school newsletter).





Module Two: Bushfire Behaviour

Causes of Bushfire

Bushfire Weather

About this Lesson

Students use real data from bushfires that have occurred in Western Australia to investigate different causes of bushfire. Students learn how small fires can become big fires very quickly and build on their understanding of how hot, windy days influence how bushfires spread. Students use real data from bushfires that have occurred in their region and a national bushfire season map to help them determine when their bushfire season occurs. Students learn how hot, dry, and windy weather can be dangerous for bushfires.

Background information

Fire is a natural part of our environment. It shapes the landscape through lightning and has been used as part of Aboriginal burning practices for thousands of years.

The term 'bushfire' describes any grass, scrub or forest fire that is burning out of control.

The cause of a bushfire can be:

- Natural: Through lightning strikes
- Deliberate: A fire that is lit or caused by a person on purpose
- Suspicious: It appears the fire has been lit on purpose but it is not possible to prove
- Accidental: A fire that starts without anyone meaning to start it

In Australia, bushfires are mostly started either deliberately or are accidentally lit. People are often unaware that campfires and other activities can create sparks that can lead to a bushfire. Bushfires are caused deliberately or accidentally by:

- Leaving a fire unattended (e.g., campfire or barbeque)
- Having an open fire on a dry, windy day
- Not putting out a cigarette or match properly before discarding
- Deliberately lighting a fire to clear land
- Deliberately lighting a fire with the intent to cause damage (arson)
- Small flames resulting from glass bottles or mirrors that become a larger fire
- Flammable chemicals that are left in the sun or hot areas
- Fireworks/Flares
- Hot Works (sparks coming off an angle grinder or similar)
- Power Lines or pole top fires (this can include animals on power lines)

Bushfires usually occur in the driest and hottest months when fuel (such as leaves, twigs and grass) is at its driest. Due to its vastness and the variation of its climate, there will always be a



number of regions in Western Australia experiencing their bushfire season at any given time. The South West Land Division (from Geraldton through to Esperance) experiences its bushfire season from late spring to early autumn.

The Bureau of Meteorology has produced a [map](#) to show fire seasons across Australia. The south coast of Australia (including the Lower South West and coastal areas of The Great Southern) generally experience bushfire season in summer and autumn. Perth and its surrounds generally experience bushfire season in summer, and Geraldton further north is more likely to have its bushfire season in spring and summer. There are always exceptions to this. Margaret River (2011) and Esperance (2015) have both experienced major bushfires in spring.

Rainfall, strong winds, high temperatures, low relative humidity, and atmospheric instability are all weather elements that affect how bushfires behave and contribute to increased fire danger. It is common for the South West Land Division to have short periods of high rainfall in winter and spring, resulting in above average growth of grassy fuels, resulting in high fuel loads, creating an above normal bushfire risk. When this area experiences below average rainfall, fuels dry out earlier, creating an above normal bushfire risk. In general, the South West Land Division is at potential risk from major bushfires every bushfire season.

Strong winds force a bushfire to move by providing the fire with more oxygen. Wind also promotes the rapid spread of fire by blowing embers kilometres ahead of the main bushfire front, creating new fires ('spotting' or 'spot fires'). Embers are small pieces of burning or glowing coals, wood, or leaves. Changes in wind direction can turn a bushfire in a new direction, causing the flames to go from being under control to out of control within minutes. These conditions can push a bushfire towards houses or a town and put firefighters and local people in danger.

Strong winds, high fuel loads, high temperatures and low relative humidity create bushfires that have the capacity to burn with great intensity. Relative humidity is a measure of atmospheric moisture. Very low humidity can cause fuels to dry out, enabling them to burn faster. High pressure systems over South Australia can also bring strong easterly winds that increase the fire danger to the southern part of Western Australia. Cyclones further north can also bring gale-force winds to the south west, increasing the risk of bushfire. Unstable atmospheric conditions can increase the intensity of a fire.

In Australia, fire prevention measures are largely based on reducing fuels – by creating firebreaks, low intensity burning of forests, woodlands, and grasslands (in cooler weather), and slashing of long grasses. Another approach to preventing fires is through community education. With such a large number of fires resulting from the actions of people, community education around how to prevent fires is very important.

Children need to understand that small fires can become big fires very quickly, not only in the bushfire season when conditions are at their worst, but at any time of the year. Prevent bushfires by not lighting fires in the bushfire season; putting out campfires correctly (Module 1); and,



Government of **Western Australia**
Department of **Fire & Emergency Services**



immediately reporting accidental fires (by calling 000) to prevent them from spreading and becoming out of control.

Using infrared video, [ember attack footage](#) shows how the wind can blow thousands of embers through the air during a bushfire. Each ember has the potential of becoming a spot fire ahead of the bushfire front. In this footage, an evaporative air conditioner has sucked embers into the roof space of one home and a fire has started.

Key Messages

- The majority of bushfires in WA are caused by humans, either deliberately or by accident.
- Small fires can become big fires very quickly and need to be reported immediately, even if they are accidental.
- Strong winds can cause a fire to spread quickly with embers starting spot fires ahead of the fire.
- Bushfire seasons vary in Western Australia depending on where you are and are likely to occur from spring through to autumn in the Southwest Land Division.

Learning Outcomes

- Students are able to determine the most common causes of bushfire in Western Australia from a set of data.
- Students understand how small fires can become big fires very quickly, what causes a bushfire to spread and what they can do if they see a fire.
- Students are able to determine when bushfires are most likely to occur in their region.

Things you will need

- **Bushfire Causes Report**
- **Bushfire Location Report**
- Highlighters
- **Fire Progression Photography** slideshow
- [Ember Attack video](#)
- [Fire Seasons Across Australia](#) Map (Bureau of Meteorology)
- **Weather Conditions** illustrations

Activity One: *Causes of bushfire*

1. As a class, list all the things that can cause (or start) a bushfire. When all possibilities are exhausted, provide prompts to make sure the following causes are included:
 - Burn offs
 - Suspicious/Deliberate (this would include arson)
 - Weather conditions – lightning
 - Power lines
 - Cigarettes
 - Vehicle/Farm Equipment Fires
2. Students all the causes and come up with of what they think are the top four main causes of bushfires in Western Australia. Decide on the top cause as a class. Hand out a copy of the latest **Bushfire Causes Report** to each student. Instruct students to look at the column on



the right-hand side of the table and to use a highlighter to highlight the top four largest numbers in the list to find out the top four main causes of bushfire. Students write down the numbers in order, from 1 to 4, with number 1 being the number one cause of bushfire in WA. Discuss:

- How do the top four causes differ from the class list?
- Were there any surprises?

Now look at the region in which you live. Highlight the top four causes of bushfires in your region. Are they the same as Western Australia's top four causes? (For extension purposes, compare previous years. Has anything changed? Discuss reasons why things could have changed, e.g., change in climate, increased aircraft, improved management of fires, better preparation for fires).

3. Use the **Fire Progression Photography slideshow** to illustrate how small fires can become big fires very quickly. In small groups, ask students to discuss how they would respond if they saw a fire. Would they respond any differently if their brother, sister or a friend started the fire? Students share their thoughts with the class. Encourage students to always call 000 (triple zero) if they see a fire, no matter how the fire starts. (see *In the Community* activity)

Activity Two: What causes a bushfire to spread

1. Recall the [fire triangle](#) from Module One. Fuel, oxygen and heat all have a role in causing a fire to burn and spread. Discuss which of the elements is most likely to have the biggest impact in causing a fire to spread once it has started. (Strong winds can force a bushfire to move fast in the direction it is blowing and can change the direction of the fire).
2. Ask students if they think they can outrun a bushfire? Usain Bolt, the fastest man in the world can run approximately 38 kilometres per hour but only for 20 seconds. A bushfire can travel up to 30 kilometres per hour but given the wind conditions, could travel even faster.
3. Wind can carry embers ahead of the fire front. When embers land on the ground or on structures they can create spot fires. View the [Ember Attack video](#) to help explain this concept. Ask students to guess how far ahead of the fire embers can travel by wind. (Embers have been known to travel up to 30km ahead of a bushfire in WA and even further in the Victorian bushfires).

Activity Three: Bushfire seasons

1. Identify the DFES region in which your suburb, town or city is located. As a class, use the latest **Bushfire Location Report** to make a line or block graph to graph the total number of bushfires each month in your region (they may need to round the numbers to do this). Based on the graph, discuss when bushfires are most and least likely to occur in your region. In groups, ask students to create similar graphs for other regions in Western Australia. Discuss what times of the year bushfires are most likely and least likely to occur in their allocated regions. (For extension purposes, 2020/21 and 20017/18. Ask, why have things changed?).
2. Introduce the term 'bushfire season' using the students' graphs. Compare the different graphs. Ask students, 'how are they the same and/or different from the region you live in?'



3. Use the [Fire Seasons across Australia](#) map from the Bureau of Meteorology to discuss with students how bushfire seasons compare with those in different parts of Western Australia. Emphasise that at any time of the year, there is always somewhere in Western Australia in a bushfire season. Have students compare their graph with the Bureau of Meteorology map. Discuss how it is the same or different.

Activity Four: *Weather Conditions*

1. Use the **Weather Conditions**' illustrations to explain how weather conditions can be dangerous for bushfires, making sure students understand dry and windy conditions are the most dangerous (see teacher answer sheet for supporting information). For each illustration, ask students to:
 - Describe the weather and environmental conditions they see in each illustration
 - Decide if the conditions increase or decrease bushfire behaviour
2. After viewing the illustrations, review the following with students:
 - If you require a fire for lighting, heating and/or cooking, who should be the person to light the fire? (a responsible adult)
 - What weather conditions might make this fire unsafe? (hot and windy weather)
 - How do we make sure a fire does not become unsafe? (Recap campfire rules from Module 1: never leave a fire unattended; always have an adult present; put out the fire safely with water before leaving it or going to bed).
 - Now we know more about weather conditions, what else can we do to ensure a fire does not become unsafe? (consider the weather conditions before lighting the fire)
3. What else other than strong winds are dangerous conditions for bushfire? (high temperatures, dry air (low relative humidity), dry fuel, atmospheric instability). Discuss terms and relate back to Fire Season Map and student graphs. Discuss what times of the year it is safe/unsafe to have a campfire or outside fire and how this might vary between regions.

Extension

- Investigate whether fire travels faster up a hill, on flat ground or down a hill.
- Discuss and investigate how climate change could be impacting the length and severity of the bushfire season in Western Australia.

In the Community

- Look at the last slide of the **Fire Progression Photography slideshow**. In small groups, students should discuss how different people are likely to respond in this situation. Consider both positive and negative outcomes. Ask students to act out the different responses in their group and have groups perform their scenarios to the class. If need be, provide prompts to students. E.g., the bush ignites. One child tries to put the fire out, another child calls 000 (fight), one child runs away (flight), one child doesn't move (freeze). Use the activity as an opportunity to reinforce that a 'small fire becomes a large fire very quickly' and in the event of a fire, always call 000.





Module Three: Bushfire Behaviour

Fire Danger Ratings

Planned Burning

About this Lesson

Students learn how Fire Danger Ratings help inform people how dangerous a fire would be if one started today. Students find out where they can find their local Fire Danger Rating. Students investigate what activities/actions are not allowed during a Total Fire Ban. Students learn about planned burning and discover why fire managers burn large areas of bushland each year in Western Australia to reduce the risk of major bushfires.

Fire Danger Ratings

In Australia, we use the [Fire Danger Rating](#) to assess 'fire danger'. The Bureau of Meteorology issues Fire Danger Ratings every day. Fire Danger Ratings last for a 24-hour time period. Fire Danger Ratings are calculated using forecasted weather conditions (temperature, relative humidity and wind speed) and local environmental conditions (fuel load, fuel, moisture and soil dryness).

The Fire Danger Rating is a measure of how difficult a fire would be to control or to put out (extinguish) if it were to start under the forecast weather conditions. The higher the fire danger rating, the more dangerous the fire conditions will be. Understanding the Fire Danger Rating and the meaning of each category helps us make decisions about what to do if a bushfire were to start.

The Fire Danger Rating has six categories: Low-Moderate, High, Very High, Severe, Extreme and Catastrophic. In Low-Moderate conditions, fires are likely to be controlled and most homes will provide safety. However, people still need to be alert to their surroundings and leave for a safer place if they notice signs of smoke or fire. They should not 'wait and see' and rely on authorities to tell them to leave but instead they should move away from the fire.

As the rating increases, the threat from a bushfire increases. Leaving early for a [safer place](#) on days of Severe, Extreme and Catastrophic weather conditions will be the safest option, even if a fire has not started. Principals of public schools on the Bushfire Zone Register¹ may receive notification from their Regional Executive Directors advising them to close their school if a Catastrophic Fire Danger Rating is forecast. Extreme and Catastrophic ratings indicate the worst conditions for a bush or grass fire and homes are not designed or constructed to withstand fire in these circumstances. If a fire starts and takes hold in these conditions, it will be extremely difficult to control and will take significant firefighting resources and cooler weather to bring it under control. DFES advises people to avoid camping or travelling in remote areas in these weather conditions, even if there is no bushfire. Once ignited, a bushfire would move very fast in these conditions.

¹ The Bushfire Zone Register identifies all public Western Australian schools located in a designated Bushfire Prone Area. Refer to the [Principals' Guide to Bushfire](#) (Department of Education WA).



Campfires, other outdoor fires for cooking and any other activities that could start a fire may be prohibited on days where the Fire Danger Rating is Very High, Severe, Extreme or Catastrophic. This is known as a Total Fire Ban. Total Fire Bans are declared on days when fires will be difficult to control and most likely to threaten lives and property. The decision to put a ban in place is based on the weather forecast or when widespread fires are seriously stretching firefighting resources. Local governments, DFES, WA Police and the Department of Biodiversity, Conservation and Attractions can issue \$1000 on-the-spot fines to someone whose actions start a fire on a Total Fire Ban day. People can be fined up to \$25 000 and/or jailed if they ignore a ban. Visit www.dfes.wa.gov.au/totalfirebans to find out more.

Fire Danger Ratings and Total Fire Ban information can be found on EmergencyWA.

Planned Burns

Prior to human habitation, almost all fires were started by lightning, resulting in infrequent burning of large areas of land. With the arrival of Aboriginal people, fire was used for hunting, management of fruiting plants for food and medicine, ease of travel and cultural and ceremonial purposes. Frequent burning of smaller areas resulted in a fine-scale 'mosaic' pattern of burnt areas in the landscape, which helped support the habitat and continuation of native plant and animal species. Similarly, modern planned burning aims for low intensity burns that do not damage the environment. Hot, intense wildfires can destroy habitats and species.

Modern day fire management² includes vegetation management strategies that include fire breaks and planned burning. Planned burns help protect life, property and critical infrastructure, as well as the environment and its ecosystems from the impact of future bushfires. Planned burning is used to reduce fuel loads that if left, could significantly build up over time. Lower fuel loads reduce the severity and size of bushfires. DFES, Parks and Wildlife Service³ and local government bushfire brigades conduct much of the planned burning in the lead up to the bushfire season, when conditions are generally cooler and there is little or no wind. Farmers and local residents also conduct burn offs during certain times of the year, which may or may not require a local government permit. Burn offs are not permitted during the bushfire season.

Sometimes smoke from planned burns lingers over residential areas and smoke alerts are issued. Smoke can reduce visibility on roads and motorists should take care, turn on their headlights and reduce their speed. Smoke can cause breathing difficulties in vulnerable people, particularly the elderly and those with asthma. Information about current planned burns and larger burn offs requiring permits can be found on the EmergencyWA website.

Contact Aboriginal Elders in your local community or the Bushfire Centre for Excellence to find out about Cultural Burning in your region.

² Fire managers consider weather, fuel load, time since the last fire, vegetation type and species, the presence of environmental and heritage sensitivities, the terrain and location of human population and location of utilities and assets when deciding when and where to burn.

³ Department of Biodiversity, Conservation and Attractions



Key Messages

- The higher the Fire Danger Rating, the more dangerous the fire conditions will be if a fire were to start. Fires on days that the Fire Danger Rating is Very High, Severe, Extreme and Catastrophic are likely to take hold, move very fast and will be difficult for firefighters to bring under control.
- Campfires, 'burning off' or fires for cooking are prohibited on days where the Fire Danger Rating is very high, severe, extreme or catastrophic. When a Total Fire Ban is declared, people are prohibited from lighting any fires in the open air and any other activities that may start a fire.
- Planned burning is a tool used by fire managers to remove excess fuel to help protect life, property and critical infrastructure and the environment from the impact of future bushfires.

Learning Outcomes

- Students are aware of the location of the Fire Danger Rating board in their local area and understand what the Fire Danger Rating tells us.
- Students understand that temperature, wind speed, fuel load and the moisture content of the soil, plants and air all help to determine the forecast Fire Danger Rating.
- Students are able to locate and monitor their local district's Fire Danger Rating online.
- Students are able to find out if any Total Fire Bans have been declared in Western Australia.
- Students understand that during a Total Fire Ban, people are prohibited from lighting any fires in the open air and any other activities that may start a fire.
- Students understand that planned burns are carried out in Western Australia to reduce excess fuel loads before the bushfire season and to decrease the chances of an uncontrollable bushfire, which can be catastrophic to plants, animals, people, property and infrastructure.

Things you will need

- Internet Access to access EmergencyWA website at www.emergency.wa.gov.au
- **Fire Danger Rating** slideshow
- Visit the Bureau of Meteorology (BoM) website at www.bom.gov.au for today's weather forecast
- Access Department of Biodiversity, Conservation and Attractions (DBCA) videos on [planned \(prescribed\) burning](#) and <https://youtu.be/mKqwh8xR0j8> and <https://youtu.be/glLyhy2N6cs>



Activity One: The Fire Danger Rating (FDR)

1. Use the **Fire Danger Rating** slideshow to introduce the Fire Danger Rating (FDR) scale, (see teacher answer sheet for supporting information).
2. Using the first image, ask students:
 - Have you seen this sign before? Where?
 - What do you think the colours mean?
 - How do you think the sign keeps us safe? (The FDR sign tells us when it is not safe to light a fire, and, that the higher the fire danger rating, the more dangerous a fire will be if one starts.)
3. Have students guess what the likely FDR would be for each set of conditions (more than one answer is possible). Explain that temperature, wind speed, fuel (quantity, composition and dryness), fuel moisture and relative humidity (lack of or excess moisture in the air) are some of the measurements used to determine the FDR.
4. Using the last slide, explain that a day's FDR helps us to understand how safe/unsafe it would be to light a fire, and how big a fire will be (or how fast it will spread) if one is lit. The FDR can also help us make decisions about what to do if there is a fire.
 - At what FDR would it be unsafe for anyone to light a fire? (this includes campfires)
 - What could you do if you see or know of someone lighting a fire during an unsafe time?
 - At what FDR do you think flying embers and spot fires would be of concern? (refer back to Module One where embers and spot fires were introduced)
5. Using the [EmergencyWA](#), show students what the fire danger rating is for that particular day. Visit the [BoM website](#) and find today's weather forecast (for where you live). Use the days' weather conditions to discuss the reason for the rating on that day.

Activity Two: *Planned Burning*

1. Show the DBCA videos, to introduce the concept of Planned Burning⁴. Discuss with students how planned burns minimise the likelihood of destructive fires through carefully planned burning programs. Discuss Aboriginal mosaic burning practices, plant and animal biodiversity and factors that help fire managers decide when and where they will conduct planned burning.
2. Return to [EmergencyWA](#) and find current planned burns. Have students check the map to see if burning is occurring in or near to your local area. Look where other planned burns are occurring and how this relates to the bushfire season of that location.
3. Although planned burns are cooler, generally smaller and more manageable fires they do have their risks. When required, DFES issues Smoke Alerts on [EmergencyWA](#) (during/after a bushfires and/or planned burns). Discuss with students why it is important for DFES to provide Smoke Alerts to the public and what precautions people can take to avoid smoke inhalation. (reduced visibility on roads and breathing difficulties; close all windows and doors and stay inside)
4. Show the Department of Biodiversity, Conservation and Attractions' video [Collie Protected by a Prescribed Burn](#). Ask students how a planned burn conducted a few months prior to a

⁴ Planned burns were previously referred to as prescribed burning or prescribed burns.



bushfire helped protect the township of Collie. How did the fact that there had been a planned burn help fire crews who were attending the bushfire?

Activity Three: *Total Fire Bans*

1. Visit www.dfes.wa.gov.au/totalfirebans and investigate Total Fire Bans. Have students answer the follow questions:
 - What is a Total Fire Ban?
 - When will a Total Fire Ban be declared?
 - How will you know there is a Total Fire Ban in place?
 - What can't you do during a Total Fire Ban?
 - Are there any penalties for lighting a fire during a Total Fire Ban and what are they?
 - What is a harvest and vehicle movement ban?
2. Return to EmergencyWA and check if there are any Total Fire Bans in place in Western Australia today. If so, how do they relate to the current Fire Danger Rating and current bushfire season of that location?
3. Ask students how the following scenarios could have an impact on them. Include impacts on attending school, family activities, health impacts (e.g. smoke) and other risk factors.
 - Catastrophic FDR
 - Total Fire Ban
 - Lighting a campfire when the FDR is Very High or above
 - A planned burn near where you live
 - A winter burn off by a neighbour

Extension

- Ask students to create an imaginative, yet informative text about a camping trip, where a fire starts. The fire could start from a campfire or another source. Include information about where the fire started, the time of the year, the weather conditions and the fire danger rating. Access knowledge gained from Modules 1-3. Include decisions made by characters in the story and the reasons why certain decisions were made.
- Ask students to present their same stories as a Factual News Report. Include safety messages, such as activities that should be avoided, given the weather and environmental conditions.

In the Community

- Find out who is responsible for changing the Fire Danger Rating sign in your community. As a class, visit your local Fire Danger Rating sign. Track the Fire Danger Rating for a week (or longer) and see if it changes as the weather changes. Discuss what factors have had greatest influence on the changing Fire Danger Rating.
- Invite local Aboriginal Elders to your classroom to talk with students about fire seasons and cultural burning.





Module Three: Bushfire Behaviour Teacher Answer Sheet

Activity One: *The Fire Danger Rating (FDR)*

1. Fire Danger Rating slideshow

Slide	Season	Answers
1	Introduction Slide	<ul style="list-style-type: none"> Fire Danger Rating signs can be found on the side of main roads as you enter a town or community. The higher the fire danger rating, the more dangerous a fire will be if it starts.
2	Winter	Low-Moderate <ul style="list-style-type: none"> Fires are less likely to start If a fire starts, it is likely to be contained/controlled quickly and most homes will provide safety.
3	Spring	Low-Moderate/High/Very High <ul style="list-style-type: none"> If a fire starts, it is likely to be contained/controlled quickly and most homes will provide safety
4	Summer and Autumn	High/Very High Very High/Severe <ul style="list-style-type: none"> Expect extremely hot and dry conditions If a fire starts and takes hold, it may be uncontrollable.
5	Summer and Autumn	Severe/Extreme/Catastrophic <ul style="list-style-type: none"> Expect extremely hot, dry and windy conditions If a fire starts and takes hold, it will be uncontrollable, unpredictable and fast moving.
6	When not to light fires	Reinforce the message that you should not light fires in the open air if the Fire Danger Rating is Very High or above. If the fire escapes and spreads, it will be difficult to control and may threaten lives and property.

Activity Two: *Planned Burning*

4. How planned burning helped protect the township of Collie

- A bushfire burnt into a place that had had a planned burn a few months ago. The planned burn meant that there was very little fuel to burn.
- Due to the lack of fuel, the bushfire became much smaller and firefighters were able to use water to cool the fire.
- Water doesn't work with a larger, hotter fire. With a larger fire, firefighters work hard to lessen the amount of fuel by creating fire breaks. Bulldozers or graders are used to make a break in the line so the fire burns to a place where there is no fuel left to burn.



Activity Three: Total Fire Bans

1. Total Fire Bans

Questions	Answers
What is a Total Fire Ban?	<ul style="list-style-type: none"> • A Total Fire Ban prohibits the lighting of any fires in the open air and any other activities that might start a fire
When will a Total Fire Ban be declared?	<ul style="list-style-type: none"> • A Total Fire Ban is declared on days when fires are most likely to threaten lives and property • Due to predicted weather conditions • Or that if there were widespread fires, there wouldn't be enough firefighting resources • It is declared the day before and lasts from midnight to midnight (24 hours)
How will you know there is a Total Fire Ban in place?	<ul style="list-style-type: none"> • Displayed on Fire Danger Rating boards • By visiting EmergencyWA website • Listening to ABC local radio • DFES social media • Department of Main Roads signs
What can't you do in a Total Fire Ban (TFB)?	<ul style="list-style-type: none"> • You are not allowed to light, maintain or use a fire in the open air, or carry out any activity in the open air that causes, or is likely to cause a fire. • Visit www.dfes.wa.gov.totalfirebans for more information
Are there any penalties for lighting a fire during a TFB?	<ul style="list-style-type: none"> • You could get an on-the-spot fine of \$1000 • Or up to \$25 000 and/or jailed for 12 months

3. Impacts

Examples	Impacts/Consequences
Catastrophic Fire Danger Rating	<ul style="list-style-type: none"> • School is closed • Leave home for the day and go and visit a friend or family member where the Fire Danger Rating is lower
Total Fire Ban	<ul style="list-style-type: none"> • Cancel camping trip as campfire/portable stove can't be used • Fireworks could be cancelled
Lighting a campfire when the FDR is Very High or above	<ul style="list-style-type: none"> • Could start a bushfire • Fines
A Prescribed Burn near where you live	<ul style="list-style-type: none"> • Could start a bushfire • Shut doors and windows and turn off air conditioners • If you have respiratory conditions, take necessary precautions
A winter burn off by a neighbour	<ul style="list-style-type: none"> • As above • Let neighbours know; bring in washing





Module Four: Planning for Bushfire

What is your bushfire risk?

About this Lesson

Students use an interactive map to identify areas of their community that fall within bushfire prone areas in Western Australia and find out if their home or school is at risk of bushfire. Students explore eyewitness statements to gain an understanding of what it is like to experience a bushfire. Students understand the importance of being prepared and planning ahead, in case they have to leave quickly in the event of a bushfire. Students may choose to investigate causes and impacts of bushfires that have occurred in recent years in Western Australia (as an extension activity).

Background Information

How do you know if you live, work or go to school in a bushfire prone area? DFES provides a [Map of Bush Fire Prone Areas](#), identifying land falling within, or partially within bushfire prone areas of Western Australia. The colour pink identifies those areas that are considered bushfire prone. A bushfire prone area is identified by the presence of and proximity to bushfire prone vegetation, and includes the 100-metre buffer zone immediately surrounding it. Ninety per cent of Western Australia is considered bushfire prone.

Therefore, you don't have to be 'living in the bush' to be at risk of bushfire. Many people mistakenly think that because they live several streets or more from bushland, they are not at risk. In the right conditions, embers can travel kilometres ahead of a fire front, so a poorly prepared home several streets away from bushland could be more at risk than a well-prepared house that backs onto bushland. Embers can enter buildings through gaps in the roof, walls, evaporative air conditioners, windows and doors. It is everyone's responsibility to reduce their bushfire risk and take the actions needed to prepare their homes and properties for bushfire.

As fire can spread very quickly, all fire emergencies must be reported immediately. Children should not try to put out a fire themselves. They should tell an adult straightaway if they see or smell fire or smoke. If there are no adults around, children must call 000 to alert emergency services of the fire and move away from the fire. Even if a child and/or their peers are involved in lighting a fire¹, it is vitally important they tell an adult or call 000 immediately as a small fire can become a large fire very quickly. The sooner an unsafe fire is reported, the sooner firefighters can extinguish (or put out) the fire.

Most firefighters in country and rural parts of Western Australia are volunteers. Career firefighters exist in and around Perth (including Rockingham and Mandurah) and there are career fire stations

¹ If you are aware of children experimenting with fire, the Juvenile and Family Fire Awareness Program (JAFFA) works with individual children to help them better understand fire behaviour, fire safety and the legal implications of arson. To find out more, visit www.dfes.wa.gov.au/jaffa.



in the larger rural centres of Geraldton, Kalgoorlie, Bunbury and Albany. Bushfire Brigades, Volunteer Fire and Rescue Services and Volunteer Emergency Services rely on a group of dedicated volunteers who may first need to travel from their homes or workplaces to the fire station before they can respond to a fire.

Not everyone thinks clearly in an emergency. A written and well-practised Bushfire Survival Plan² is one way to help safely carry out what needs to be done before and during a bushfire. A good bushfire survival plan includes preparing a family emergency kit before the bushfire season and keeping it by the front door, ready to take when leaving early, or in a bushfire emergency. Upper primary school students can contribute to an emergency kit by putting together their own 'grab bag' to take if they need to leave quickly in the event of a bushfire.

Some essential items to include in an emergency kit:

Prepare before the bushfire season:

- Drinking water
- Portable battery operated radio with spare batteries
- Waterproof torch with spare batteries
- First Aid Kit
- Woollen Blanket
- Emergency Contact numbers
- Bushfire Protective Clothing
- Specific requirements for your family members
- Important documents and valuables (in a plastic bag)
- Spare clothes
- Combination pocket knife

Packing for pets:

Pack on the day of a disaster:

- Wallet, keys and phone with charger
- Medication and toiletries
- Food, water and bowls
- Bedding
- Medication or special requirements
- Registration/microchip information
- Lead (or pet crate)

DFES recommends children and young people be involved in emergency planning, as they often think of items to include in emergency kits that adults may not consider as important. Young people can also help arrange for the safety of pets and other animals and help explain family plans to younger children.

Activity Two requires you to invite your Principal or Deputy Principal to your classroom to discuss your school's Bushfire Plan with your students. If you haven't already, at the end of this module, send the **Parent Information Sheet** home with students and have them complete a Bushfire Plan with their families³.

Key Messages

- It is important to know your bushfire risk
- It is important to know your school's bushfire plan

² Bushfire Survival Plans are covered in Module Five.

³ Although not the preferred option, those students whose parents/carers will not engage in this activity can download the My Bushfire Plan App and make their own Bushfire Plan.



- Through learning about the past and from other people's experiences, we can better understand our bushfire risk and be better prepared for a bushfire emergency
- If children see an unsafe fire they should tell an adult immediately
- Fire emergencies should be reported immediately by calling Triple Zero (000) as a small fire can become a large fire very quickly
- Have an emergency 'grab bag' ready to take if you need to leave early or quickly

Learning Outcomes

- Students are able to identify if an area is bushfire prone
- Students understand their school's bushfire plan and know what will happen in the event of a bushfire emergency occurring while they are at school
- Students understand what has happened in the past and how learning about others' bushfire experiences can help people be better prepared
- Students know how to respond appropriately when they see people playing with fire
- Students know what to include in an emergency 'grab bag'

Things you will need

- Internet Access to access the [Map of Bush Fire Prone Areas](#), [My Bushfire Plan](#) (mybushfireplan.wa.gov.au), and [Emergency Kits; Oakford Fire Story with Amanda](#)
- **Invite** your Principal or Deputy Principal to explain the school's Bushfire Emergency Plan to students
- **Eyewitness Account**
- **My Emergency Grab Bag** worksheet
- **Parent Information Sheet** (find in Teacher's Guide)
- **My Family's Bushfire Survival Plan** worksheet

Activity One: *Am I at Risk?*

1. Ask students what it means if an area is identified as 'bushfire prone'? Ask students, do you think your school is in a 'bushfire prone' area?
2. Open the [Map of Bush Fire Prone Areas](#) on an electronic whiteboard. The map uses the colour pink to identify bushfire prone areas. Using the search bar, search for your school and check to see if it lies in a pink area on the map. If so, it is considered 'bushfire prone'. Discuss what this might mean to your school.
3. Zoom in and out of the map and locate any local areas students are familiar with. Choose one that is bushfire prone (coloured pink) and one that is not. Have students compare the two familiar areas and discuss:
 - What is the difference between these two locations? What would make one bushfire prone and not the other? Draw on local knowledge of vegetation, structures, waterways, etc.
 - You may choose to have students see if their own homes are in pink areas on the map.



- How does knowing an area is bushfire prone help us? How does this information help fire managers? (see teacher answer sheet)

Activity Two: *Eyewitness*

1. Look at the **Eyewitness Account** and use it to discuss how a bushfire looks, smells like, and some of the impacts of bushfire. Discuss the emotions that people might feel. Discuss with students if they think they would be physically prepared for a bushfire close to their home? Do they think they would be mentally and emotionally prepared?
2. Ask students to think of a time when they have gone on an excursion. Discuss how you have planned for the excursion (chose a venue, notes home, bus organised, parent helpers, lunch organised, wet weather gear, etc.). Discuss if the class would be ready for an excursion today? If we waited outside, would the bus arrive to take us, etc.? What if we had planned for the excursion? How important do you think plans are? What about if there was a bushfire? Would we be ready for a bushfire? Do you think we need a bushfire plan?
3. [Watch the Oakford Fire Story with Amanda](#). Revisit these questions:
 - How important do you think bushfire plans are?
 - Would you be ready for a bushfire?
 - What does Amanda recommend everyone does?
 - Do you think your family needs a bushfire plan?
4. Does your school have a plan for bushfire? Invite your principal or deputy principal to your classroom to outline your schools' bushfire plan. Some questions students may want to ask:
 - How does a bushfire emergency differ to a non-bushfire fire emergency at school?
 - What will happen when a Catastrophic Bushfire Danger Rating is forecast?
 - Where will students assemble in the event of a bushfire?
 - Will we evacuate and how?
 - How will parents know when and where to collect us?

Ask students to complete the section of the **My Family's Bushfire Survival Plan** worksheet "What will we do if a bushfire happens when we are at school".

Activity Three: *What Can I Do?*

1. Lead students in a guided discussion about how to get help in an emergency:
 - What should you do if you see an unsafe fire?
 - Who can you ask for help?
 - What number can you call in an emergency?
 - Why should you never call Triple Zero as a prank/joke?
2. Ask students to imagine there is a bushfire in their area. They are at home and have to evacuate immediately as it is not safe to stay. Give them 15 seconds to write down three things they are going to take with them before they leave to go to a safe place. As a class, discuss items that students have chosen to take with them. Discuss the essential items that might be missing – and how important things can be missed when we do not have a plan.
3. Using the **My Emergency Grab Bag** worksheet, ask students to draw the items they would like to take if they had to leave their home in a hurry. Some questions to consider:



- What would you take if you had 1 hour to prepare? What about 10 minutes? What about 2 months?
 - Do you know what important documents are and where they are kept?
 - How could you protect this information ahead of time?
 - If you needed to leave your home for a long time, what would you need? (E.g., torch with spare batteries, food and water for everyone – including babies and pets, medication, hygiene, clothing).
4. Get students to compare their drawings; are there any similarities/differences? What are they? Explain to students that it is a good idea for families to prepare an emergency kit and keep it by the front door at the start of the bushfire season. Visit [Emergency Kits](#) to find an extensive list of items to place in an emergency kit. Reinforce that ***leaving early is always the safest option.***

Extension

- Use the internet to research and develop a timeline of major bushfires that have occurred in Western Australia. Consider the different causes of these bushfires and the impacts they have had on the communities in which they occurred. Impacts include homes/buildings damaged or lost, number of hectares burnt, loss of infrastructure and services (e.g. power, water and roads), people injured and lives lost⁴.

In the Community (in preparation for Module Five)

- Send students home with the **Parent Information Sheet** (find in Teachers' Guide). Explain to students that the next module will cover bushfire plans and you will be asking them to prepare a Bushfire Plan with their families/carers. If students have a 5-Minute Fire Chat with families prior to the next lesson, they can document information on the **My Family's Bushfire Survival Plan** Worksheet.

⁴ For this age group, you may choose NOT to focus on people injured and lives lost





Module Five: Planning for Bushfire

Bushfire Alerts and Warnings

My Bushfire Plan

About this Lesson

Students learn about bushfire alerts and warnings and where they can access information about current bushfires. Students take part in activities that to give them the knowledge and skills on how to prepare and plan for a bushfire emergency. Teachers demonstrate how to make a bushfire plan using DFES's [My Bushfire Plan](http://www.mybushfireplan.wa.gov.au) (www.mybushfireplan.wa.gov.au). Students initiate their own Family Bushfire Plan.

Bushfire Warnings

On hot and windy days, a bushfire can start suddenly and take hold very quickly, without time for firefighters to issue a warning. Staying alert to your surroundings on hot, dry, windy days and knowing what to do when there is a bushfire can make a real difference in saving lives. During a bushfire, emergency services will provide as much information as possible through a number of different channels:

- DFES website at www.dfes.wa.gov.au
- Emergency WA alerts and warnings at <https://www.emergency.wa.gov.au/>
- DFES emergency information line on 13 DFES (13 3337)
- DFES twitter feed at www.twitter.com/dfes_wa
- ABC local radio broadcasts

There are three levels of warnings¹:

- **ADVICE:** a fire has started but there is no immediate danger. This is general information to keep you informed.
- **WATCH AND ACT:** a fire is approaching and conditions are changing. There is a possible threat to lives and homes. You need to start taking action now to protect you and your family.
- **EMERGENCY WARNING:** you are in danger and need to take immediate action to survive, as you will be impacted by fire.

[Emergency Alert](#) is another way of warning people about bushfires, floods and severe weather emergencies in (or near) their community. Emergency Alert is the national telephone warning system used by emergency services to send voice messages to landlines and text messages to mobile phones within a defined area about likely or actual emergencies.

¹ The warning levels change to reflect the increasing risk to your life and the decreasing amount of time you have until the fire arrives.



Individuals may receive these calls (when answering their home phone) or as text messages (on their mobile phone) and there is no opt out option. It is essential to explain to children what to do if they receive an emergency warning call or message.

If a child receives an emergency warning on their mobile phone while they are at school, they must tell a teacher straight away and follow the emergency procedures in place at their school. If they receive this message while home alone, they must tell a responsible adult over the phone or talk to their neighbours in person if safe to do so. They must follow the directions of the message and move to a safer place, if possible. Children can call Triple Zero if an adult is not available to assist.

People should not rely on receiving a warning message on their phone before they act. When there is a bushfire alert or warning, it is critical that people pay attention to their surroundings, regularly checking for signs of smoke or fire. When a bushfire starts people must not 'wait and see' but instead move to a safer place, away from the fire.

If a child is home alone and unable to move to a safer place then they need to shelter in their home. To ensure the best chance of survival, they would need to:

- Stay in the house
- Make sure all doors and windows are closed
- Soak towels and rugs in water and lay them along the inside on doors that lead outside
- Soak woollen blankets and keep them next to you to protect you from the heat
- Shelter in the room furthest from the approaching fire that has more than one entry point (e.g., doors or windows)
- Get down low
- Drink plenty of water
- If your house catches on fire and the conditions inside become unbearable, leave through the door furthest from the approaching fire and go to an area that has already been burnt

It is a common misconception that a police officer or firefighter will call or knock on your door to tell you a bushfire is coming, and you need to evacuate. This is highly unlikely to happen. Not hearing a warning does not mean there is no threat. One of the best ways to know if there is a bushfire is to stay alert – look around, smell the air, listen for sirens – especially on high fire danger (or above) days.

Bushfire Plans

Not everyone thinks clearly in an emergency – the biggest problem is indecision, not knowing what to do at a time when precious minutes could be crucial to your survival. A written and well-practised bushfire plan includes preparing your property, putting an emergency kit together before the bushfire season and deciding beforehand (as a family) what to do if there is a bushfire. Only a few of your students (if any) will have been actively involved in helping prepare their homes and yards for the bushfire season. Research tells us that if young people know what the plan is in the event of a fire and are involved in the planning process, they are likely to be less anxious and can follow the family plan.



In a bushfire, every minutes counts. DFES encourages everyone to take the time to make a Bushfire Plan with their family before the start of the bushfire season. [My Bushfire Plan](#) is an easy tool to use. It can be completed on your computer, or you can use the My Bushfire Plan App.

Some of the questions addressed in My Bushfire Plan, include:

1. Is where I live at risk of bushfire?
2. How do I choose my plan? What is the safest choice? (The App will help families with this decision if they are unsure).
3. WHEN will we know to leave?
4. WHERE will we go?
5. WHICH way will we go?
6. Can my family stay and defend? What is the safest choice? (The safest choice is always to leave early).

My Bushfire Plan includes preparation checklists and resources. The plan includes everything, so if you are face with a bushfire, you can grab your plan and follow it. This beats running around and trying to think of everything when you are in a highly anxious state. The safest choice is always to leave early. Most people, when faced with the following six questions choose to be safe and leave early²:

1. Who am I putting in danger? (Your children, elderly parents, members of the household who are sick or have a disability?)
2. Am I mentally, physically and emotionally prepared? (5 Minute Fire Chat helps you understand the realities of fighting a bushfire and how traumatic it can be)
3. Am I able to fight a fire for hours without the help of firefighters? (the reality is a firetruck may not arrive)
4. Does everyone in the household agree with the plan to stay? (it is important that everyone understands what it will be like to stay)
5. Am I committed to acquiring the necessary equipment? (you cannot fight a fire with a garden hose, wearing shorts, t-shirt and a pair of thongs)
6. Am I committed to prepare our property for a bushfire?

Key Messages

- DFES issues warnings during a bushfire. Bushfire warnings tell us when a bushfire has started and what actions we need to take. This includes putting your bushfire plan into action.

² DFES recommends that children should not be present in the event of a bushfire. Even if adults are prepared, the safest place for children is AWAY from the fire.



- It is a good idea for families to have completed their My Bushfire Plan. A well thought through and practised bushfire plan will assist them to take action and avoid last minute decision making.
- People need to remain alert and pay attention to their surroundings during the bushfire season (use their senses).

Learning Outcomes

- Students can find information during a bushfire.
- Students can explain the difference between a bushfire advice, a watch and act alert and an emergency warning.
- Students know what to do if they are at home alone and a bushfire starts.
- Students are able to tell others about the need to plan for and respond to a bushfire in order to keep safe.
- Students know how to find My Bushfire Plan online.
- Students initiate and participate in making and/or practising a bushfire plan with their families.

Things you will need

- Internet access (to access [My Bushfire Plan](#))
- Transistor radio (battery operated or one with a wind up handle)
- **My Family's Bushfire Survival Plan** (completed or partially completed)
- **My Bushfire Plan examples** (copy for each group of students)
- **Bushfire Warning Slideshow** and/or [Alerts and Warnings, Know your risk](#) and [Prepare Your Property](#) videos. Include the video [How to plan and prepare for bushfires](#).
- **Invite** guests (members of your school community to share their bushfire plans - you may want to share your own plan with your students)

Activity One: *Bushfire Warnings*

1. Ask students, 'How do you know a bushfire has started?' They may see or smell smoke or see or hear a bushfire warning. Discuss with students how they might see or hear a warning (social media, radio, television, landline, or mobile phone emergency alert, through family or teachers). Watch the [Know your risk](#) video and discuss what you can do to stay informed.
2. Use the **Bushfire Warnings Slideshow** and/or [Alerts and Warnings](#) video to explain the different levels of bushfire warnings to your students (see teacher answer sheet for supporting information). Please note: Only use Slides 1-5 for students with low literacy. Students can draw pictures to represent the appropriate meanings and actions of each warning level.
3. Show students how to find warnings on the [Emergency WA](#) website. Are there any current Bushfire Warnings in Western Australia? (Have students locate and share with the class).
4. Show students how to find the local emergency services station on a radio (your local ABC). You can find your local emergency radio station by visiting the [ABC radio](#) website. Have students investigate where else they can access warnings (Clue: Visit the [DFES website](#)).



Activity Two: *Having a bushfire plan*

Having a bushfire plan means that everyone in your family knows what to do in a bushfire emergency. Having a plan can help you keep a clear head and keep calm, which will help you as you follow your well-thought-out plan. Watch the [Know your risk](#), [Prepare Your Property](#) videos and the [How to plan and prepare for bushfires](#) videos.

1. Divide the class into three groups and have them look at each video again, summarising the key points in each video. (You may like to divide the last video into a number of sections).
2. Students share with the class what they have learned. There is a lot to think about – one of the reasons we need to plan ahead in advance.
3. Discuss or debate the question, ‘Why is leaving early, always the safest option?’, especially when there are children involved.

Activity Three: *My Bushfire Plan*

1. Invite one or two guest speakers to your classroom to discuss their bushfire plans³ with your students.
2. Use a map (e.g., Bushfire Risk Area Map) and have students ask their guests:
 - WHEN will you know to leave?
 - WHERE will you go?
 - WHICH way will you go?
 - If they have an emergency kit and what is in their emergency kit
3. Visit [My Bushfire Plan](#) and work through your own bushfire plan (or use one of the examples provided) with your students. Help them navigate the site, show what information is found there and what is included in the plan. Show them how the plan can easily be printed and shared with others.
4. If students have not completed their Bushfire Survival Plan at home, ask them to complete their **My Family’s Bushfire Survival Plan** in pencil. Encourage them to take the plans home to discuss with their families and make the necessary adjustments to their plans.

Extension

- Have students investigate the national telephone warning system [Emergency Alert](#) used by emergency services to send voice messages to landlines and text messages to mobile phones within a defined area about likely or actual emergencies. Get students to investigate emergency alerts and research the following:
 - When Emergency Alerts are used
 - What the message will say
 - Why you shouldn’t rely on receiving a phone warning message before you act

³ Ideally choose guests who are planning to leave early. If your guest is not leaving early, they need to demonstrate that they are very well prepared and are able to emphasise that unless families are well prepared, they must leave early.



In the Community

- Students organise a parent night, assembly or classroom event. Students communicate what they have learnt about bushfire. They could share examples of different bushfire plans and provide information about the school bushfire plan. Provide families with the opportunities to share their plans.
- Invite a member of your local Bushfire Ready Group⁴, or local brigade to the meeting to talk about what they do.
- Invite your local bushfire brigade to your school's bushfire drill. Give students the opportunity to share their completed plans with brigade members. Brigade members may be able to advise students on anything that is missing from their plans.

⁴ Bushfire Ready is a local community action program aimed at residents working together to prepare and protect their families and properties against bushfire. Contact your local government to find out more.





Module Five Teacher Answer Sheet

Activity One: *Bushfire Warnings*

Slide	Image	Description
1	Introduction	During a bushfire, community alerts and warnings are issued when bushfires start and for bushfires that threaten lives and property. They give us important information about the fire and what actions we need to take for each one. There are 4 levels, <i>Advice, Watch and Act, Emergency and All Clear</i> .
2 - 5	Introduction to Bushfire alert levels	The photographs allow students to visualise and better understand that the changing levels reflect the increasing risk to life and the decreasing amount of time there is until the fire arrives. The most important thing to remember is that leaving early is always the safest option. The longer you wait, the greater the risk to your life.
6	Bushfire Level – Advice	Ask students: <ul style="list-style-type: none"> • What adults could they tell? <i>parents, neighbours, teachers</i> • Where would you look for more information? <i>social media, radio, television, through other people</i> • Where is a safer place? <i>away from the fire and anywhere outside the warning area</i>
7	Bushfire Level Watch and Act	Explain that if they have not already left for their safer place they should do so now.
8	Bushfire Level Emergency	Explain that it is important that they do not find themselves in this situation as they should have already left during the Watch and Act level. Keeping up to date with information will help avoid this. Note: <i>If students wish to discuss what to do in the event they receive an emergency warning, more information on actions to reduce risk to life can be found in the modules background information.</i>
9	Bushfire Level All Clear	Explain that sometimes fires can reignite so they should continue to look for more information in case this occurs.
10	EmergencyWA	Show students how to find warnings on the Emergency WA web site. Point out a coloured area that indicates a warning zone. Reinforce that a ‘safer’ location is a place outside this area and you should move to any place outside the coloured zone when leaving your home due to a fire.
11 - 13	Test your knowledge	Students practice their bushfire levels knowledge.



Note: The bushfire warning messages found within the **Bushfire Warnings** slideshow have been adapted from the general public warnings to simplify the language and identify actions that students can undertake. To view the messages found in the general public warnings please visit the [DFES website](#).

Activity Two: Having a bushfire plan

3. Why is leaving early always the safest option?

Bushfires are unpredictable and are a real threat. Most people are not physically, mentally or emotionally prepared and do not have the necessary equipment to stay and defend. A fire truck will not be at the end of your driveway to help you defend your property.

Activity Three: My Bushfire Plan Examples

3. Teachers can use one or two of these examples with My Bushfire Plan if you don't wish to go through your own plan.

- Karen and Ash - Be safe and leave early
- Michael and Dave - Be safe and leave early
- Les and Bruce - Be prepared to stay and defend
- Ali and Pete - Be safe and leave early

