











# North West Bushfire Patrol

## Teacher Guide Years Pre-Primary to Year 3

Building Disaster Resilience in Young People



Department of Fire and Emergency Services

Department of Biodiversity, Conservation and Attractions

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#### **Contacts**

#### **Department of Fire and Emergency Services**

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#### **Department of Biodiversity, Conservation and Attractions**

17 Dick Perry Avenue, KENSINGTON WA 6151, Locked Bag 104, Bentley Delivery Centre

For Kimberley school-aged education enquiries:

Call: (08) 9168 4200

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## **About This Program**

North West Bushfire Patrol focuses on bushfire education within the Kimberley region. The program serves as a teaching resource for primary schools and fits within the Western Australian Curriculum. The resource takes into account the Kimberley region's varied population, and all lessons are suitable to be used in both town and community schools.

The intended outcome of *North West Bushfire Patrol* is to raise student's awareness of bushfire and its consequences, whilst further developing a range of skills to help them respond to bushfire when it occurs.

Human risk from disaster is on the rise globally and children are amongst the most vulnerable to disasters.<sup>1</sup> The impact of disasters such as bushfire can be substantially reduced if the community is well prepared and equipped with the knowledge and skills of how to respond when a disaster occurs.

This program reflects an inquiry approach where students are directing their learning and applying it to their own location. The key outcomes include:

- Identifying safe and unsafe behaviour with fire
- Understanding that fire is a tool for responsible adults who hold the knowledge and skills to use it
- Identifying unsafe fire times and risk
- Developing personal behaviours and strategies for staying safe when there is a bushfire
- Understanding how to respond to a bushfire
- Understanding the impact of deliberately lit bushfires

## **Previous Experience with Fire**

In most school communities there will be some families who have had a personal experience of bushfire. Teachers need to be aware of any student who may find the topic distressing and should take actions for the wellbeing of that child.

### Children who have a Fascination with Fire

North West Bushfire Patrol Pre-primary to Year 3 modules do not include any activity that has teachers or visitors light a fire or demonstrate flame. The program focuses on fire safety without providing opportunities for some children to increase their fascination with fire or flame.

There are children who are fascinated by fire and who are already either lighting fires or endangering themselves by getting close to fire. DFES' Juvenile & Family Fire Awareness (JAFFA) Program is available for these children and their families.

<sup>&</sup>lt;sup>1</sup> 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

JAFFA is delivered by specially trained firefighters in the family home. It consists of an interview with the parent and child, and a specially adapted education session that assists the young person to understand the consequences of playing with fire. For more information about the JAFFA Program or to refer a child, please contact the JAFFA Coordinator on 9395 9488, email jaffa@dfes.wa.gov.au or go to <a href="www.dfes.wa.gov.au/jaffa">www.dfes.wa.gov.au/jaffa</a>.

## **Disaster Risk Reduction (DRR) Outcomes**

Disaster risk reduction education is about building students' understanding of the causes, nature and effects of hazards while also developing a range of skills to help prevent and lessen the impact of a disaster.

DRR education has the following dimensions<sup>2</sup>:

- Dimension 1: Understanding the science and mechanisms of natural disasters why they happen; how they develop; where they occur; their frequency; and their physical impacts.
- Dimension 2: Learning and practising safety measures and procedures
- Dimension 3: Understanding risk and how hazards can become disasters
- Dimension 4: Building community risk reduction capacity by identifying local hazards and developing plans to respond to them
- Dimension 5: Building a culture of safety and resilience

The intended disaster risk reduction outcomes for pre-primary to Year 3 are:

- 1. Students do not light fires unsupervised
- 2. Students do not play with lighters and matches
- 3. Students tell adults immediately if they see lighters and matches in the reach of children
- 4. Students seek help from an adult when there is an unsafe fire, even when they took part in lighting the fire
- 5. Students know to call Triple Zero when there is an unsafe fire
- 6. Students seek help from an adult when they see others being unsafe with fire
- 7. Students are able to inform others of how weather can increase bushfire danger and create unsafe fire conditions.

<sup>&</sup>lt;sup>2</sup> UNESCO & UNICEF. 2012. *Disaster Risk Reduction in School Curricula: Case studies from thirty countries*. Geneva: Switzerland. http://unesdoc.unesco.org/images/0021/002170/217036e.pdf

## **Using this Learning Program**

This education resource has been written for teachers and provides lesson plans, photos, illustrations and worksheets for pre-primary to Year 3. The lessons are ideally delivered as a whole unit of work, so that students are better able to work towards achieving all disaster risk outcomes.

Before beginning any part of the program it is highly recommended that the students undertake the introduction activity (*Critical Thinking and Reflection*) found in the appendix, which allows student to apply critical thinking skills to identify what they know and what they don't know about bushfires in their local area. These ideas can be revisited throughout the learning process to help both the teacher and student to reflect on what they have learnt so far and what they still need to find out.

## **Whole of School and Community Approach**

Research conducted around child-centred disaster risk reduction has repeatedly shown that multi-component whole-school initiatives involving the whole school community are more likely to increase disaster resilience outcomes than single one-off learning activities done in isolation.

A whole school approach includes all members of a school community, including teaching and non-teaching school staff members, parents and guardians, all students and the wider community. It involves providing students with interactive and engaging learning activities, ensuring all school staff and students are invited to be part of the learning process and building positive and respectful partnerships with families and the wider community.

For these reasons you will find within the modules the following activity suggestions which will help build a whole of school and community approach;

- Ways to help guide children to talk with parents about what they have learnt.
- Ideas on how students can engage the wider community during the learning process
- Child-parent interactive homework suggestions
- Activities which use the 'kids teaching kids' model so that those students learning about bushfires can teach other students.
- Ideas on how to have direct engagement with local emergency management staff

To encourage household and family involvement in the learning program, a *Parent Information Sheet* can be found in the appendix, which we encourage you to send home to parents and carers at the commencement of the learning process.

## **Arranging a Firefighter Visit**

To organise a visit from local firefighters, contact your local DFES or Parks and Wildlife Service office. As most emergency services are provided by volunteers in the Kimberley region, it may not always be possible for a firefighter to visit your school.

The purpose of the firefighter visit is to reinforce the key messages of *North West Bushfire Patrol*. The visit is also an opportunity for your students to learn more about community helpers and find out what they do.

The firefighter visit is designed to be delivered to one class at a time. The effectiveness of the presentation relies on students being able to interact with the firefighter and is not suitable for a large audience.

The main role of most of the firefighters that come to your class is to fight fires. Whilst they may have some experience in working with young children, they will need your help to make sure their session goes well.

To ensure that all students benefit from this presentation, teachers are asked to take responsibility for their students' behaviour. There is a possibility the firefighters are on duty and could be called away to an emergency during the presentation.

The firefighters might bring a fire truck and arrange for your students to look through the fire truck and see a firefighter in their breathing equipment. This may not be possible nor suitable for all lessons.

Your local Aboriginal ranger group may also be able to talk to students about fire management and their role fighting fires, and may be able to show students some of the equipment they use.

## **Knowing your Local Community**

The Kimberley region is a vast area and the range of emergency services varies between larger towns and more remote regions. Volunteer organisations play a vital role in providing services to towns and communities throughout the Kimberley region. There is value in knowing your local area and what emergency services and volunteer organisations are available as this will influence how you teach certain parts of the program. The following organisations can be contacted for more information surrounding local services.

Agency	Location
Department of Fire and Emergency Services	Broome
(DFES) regional offices	<ul> <li>Kununurra</li> </ul>
Department of Biodiversity, Conservation and	<ul> <li>Kununurra</li> </ul>
Attractions offices and work centres	<ul> <li>Broome</li> </ul>
	<ul><li>Derby</li></ul>
	<ul> <li>Fitzroy Crossing</li> </ul>
Bushfire Brigades	<ul> <li>Broome</li> </ul>
	<ul><li>Ivanhoe</li></ul>
	<ul> <li>Packsaddle</li> </ul>
	<ul> <li>Crossing Falls</li> </ul>
Volunteer Fire and Rescue Brigades	<ul> <li>Broome</li> </ul>
	<ul> <li>Kununurra</li> </ul>
Volunteer Fire and Emergency Services	<ul> <li>Fitzroy Crossing</li> </ul>
	<ul> <li>Halls Creek</li> </ul>
	<ul> <li>Wyndham</li> </ul>
State Emergency Services	<ul> <li>Kununurra</li> </ul>
	<ul><li>Derby</li></ul>
	<ul><li>Broome</li></ul>

## **School Bushfire Emergency Plans**

If your school is in or near a designated bushfire prone area, bushfires are a real risk to you and your students and your school buildings and grounds. It is strongly recommended that a stand-alone bushfire emergency plan is developed by all schools that sit in bushfire prone areas. You can find out if your school is at risk to bushfires by using the DFES map of <a href="Bushfire Prone Areas">Bushfire</a> Prone Areas. Speak to your school management team about your schools bushfire emergency plan.

It would be highly valuable for you to organise and conduct school or classroom bushfire drills while undertaking this learning program. Make sure that students understand what a bushfire drill is and why it is important. Involve students in an activity where they reflect on how effective the drill was and how it could be improved.

## **Household Bushfire Emergency Plans**

DFES encourage all households in Bushfire Prone Areas to complete a My Bushfire Plan. A bushfire plan will help families make important decisions like, when to go, which way to travel, where to go and what to take. A plan will give families the best chance of surviving a bushfire. It is important to highlight that leaving early is always the safest option.

There is no activity in the PP - Year 3 learning program for students to complete a Family Bushfire Survival Plan as this task it not suitable for most students in this age bracket. It is possible that some students may be willing and able to complete this task, and if so, it is recommended you see Module Five (*Responding to Bushfire*) from the year 4 – 6 learning program for assistance and access to the **My Family's Bushfire Survival Plan** worksheet.

It is recognised that this activity may be difficult for some students where parents or guardians are unwilling or unable to participate. Instead encourage students to have a conversation about their bushfire plan with other classroom students to decide the following:

- When will they know to leave their home?
- Where will they go?
- Which way will they go?

My Bushfire Plan will help with this task.

#### **Additional Resources and Useful Weblinks**

Department of Fire and <a href="www.dfes.wa.gov.au">www.dfes.wa.gov.au</a>

Emergency Services (DFES)

DFES Alerts and Warnings <a href="www.dfes.wa.gov.au/alerts">www.dfes.wa.gov.au/alerts</a>

DFES Fire Danger Ratings <u>www.dfes.wa.gov.au/firedangerratings</u>

DFES Bushfire Publications <a href="www.dfes.wa.gov.au/safetyinformation/fire/bushfire/Pa">www.dfes.wa.gov.au/safetyinformation/fire/bushfire/Pa</a>

ges/publications.aspx

www.dpaw.wa.gov.au/management/fire

Department of Biodiversity,

Conservation and Attractions

(DBCA)

EmergencyWA www.emergency.wa.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

Triple Zero Challenge kids.triplezero.gov.au

Burning Issues Learning Module <a href="http://www.environorth.org.au/teach/burningissues.html">http://www.environorth.org.au/teach/burningissues.html</a>

Burning Issues, Tropical Savannas CRC. Interactive CD-ROM & website teaching students about fire in northern

Australia

http://www.environorth.org.au/learn/burning\_issues\_learning\_module.html

www.bom.gov.au/australia/warnings/index.shtml

The Art of Fire, Jimmy Pike. Backroom Press, Broome, 2008. Pictures and stories telling how Western Australian desert Aborigines traditionally used fire as a tool to manage the land.

## **Appendix**

## **An Introduction Activity to the Modules**

Before beginning any part of the program it is highly recommended that students undertake the following introduction activity. This will allow students to apply critical thinking skills to identify what they know and what they don't know about bushfires in their local area. These ideas can be revisited throughout the learning process to help both the teacher and students reflect on what they have learnt and what they still need to find out.

- Use the **North West Bushfires Photography** slideshow to prompt discussion and explore what students know and don't know about bushfires in their region.
- Use the template below and work as a class to list all the things students know and don't know about bushfires. Display this information in the classroom so it can be referred to throughout the learning process.
- Revisit the ideas after Module Two or Three to review students' initial ideas. "Were the students correct about what they knew? Do they now know the answer to some of their questions? Consider a third questions, "what more do you want to know?"
- After Module Five use this tool again to reflect on what students have learnt and what they still need to learn.

#### Critical thinking and learning template

What do we know about bushfire?	What don't we know about bushfires?	What do we want to know about bushfires?





#### **Parent Information Sheet**

#### North West Bushfire Patrol

Dear Parent/Carer

Our students are learning about bushfires in Western Australia, using a Department of Fire and Emergency Services (DFES) resource, North West 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 <u>mybushfireplan.wa.gov.au</u> 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









## **Curriculum Links**

HEALTH AND PHYSICAL EDUCATION: Personal, social and community health				
Year	Strand	Content Descriptors	Module	
Pre Primary	Being healthy, safe and active	<ul> <li>Protective behaviours to keep safe and healthy</li> <li>Trusted people in the community who can help individuals feel safe</li> </ul>	<ul> <li>How Bushfires Start</li> <li>Matches are Tools not Toys</li> <li>Responding to Fire – Seeking Help</li> </ul>	
	Contributing to healthy and active communities	<ul> <li>Safe active play in outdoor settings and natural settings</li> <li>Actions that promote health, safety and wellbeing</li> </ul>	<ul> <li>How Bushfires Start</li> <li>Matches are Tools not Toys</li> <li>Responding to Fire – Seeking Help</li> </ul>	
Year 1	Being healthy, safe and active	Strategies to use when help is needed	<ul> <li>Matches are Tools not Toys</li> <li>Responding to Fire – Seeking Help</li> </ul>	
	Contributing to healthy and active communities	Actions that support a safe classroom	<ul> <li>Matches are Tools not Toys</li> <li>Responding to Fire – Seeking Help</li> </ul>	
Year 2	Being healthy, safe and active	Strategies to use when help is needed	<ul> <li>Matches are Tools not Toys</li> <li>Responding to Fire – Seeking Help</li> </ul>	
	Contributing to healthy and active communities	Actions that keep people safe and healthy in and outside the classroom	<ul> <li>How Bushfires Start</li> <li>Matches are Tools not Toys</li> <li>Responding to Fire – Seeking Help</li> </ul>	
Year 3	Being healthy, safe and active	Assertive behaviours and communication skills to respond to unsafe situations	<ul> <li>How Bushfires Start</li> <li>Matches are Tools not Toys</li> <li>Responding to Fire – Seeking Help</li> </ul>	

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Year	Strand	Content Descriptors	Module
Pre Primary	Earth and Space Sciences	Daily and seasonal changes in our environment affect everyday life	What Bushfires Like
	Biological Sciences	<ul> <li>Living things have basic needs, including food and water</li> </ul>	<ul> <li>Impacts of Bushfires on Plants and Animals</li> </ul>
Year 1	Earth and Space Sciences	Observable changes occur in the sky and landscape	What Bushfires Like
	Biological Sciences	Livings things live in different places where their needs are met	<ul> <li>Impacts of Bushfires on Plants and Animals</li> </ul>
Year 2	Biological Sciences	Living things grow, change and have offspring similar to themselves	<ul> <li>Impacts of Bushfires on Plants and Animals</li> </ul>
Year 3	Physical Sciences	Heat can be produced in many ways and can move from one object to another	What Bushfires Like

Note: Science as Human Endeavour and Science Inquiry Skills are consistent across all lessons

	HUMANITIES AND SOCIAL SCIENCE: Civics and Citizenship			
Year	Strand	Content Descriptors	Module	
Year 3	Knowledge and Understanding: Communities	<ul> <li>Who makes rules, why rules are important and the consequences of rules not being followed</li> <li>How students can actively participate and contribute to their local community</li> </ul>	<ul> <li>How Bushfires Start</li> <li>Matches are Tools not Toys</li> <li>Responding to Fire – Seeking Help</li> </ul>	

HUMANITIES AND SOCIAL SCIENCE: Geography			
Year	Strand	Content Descriptors	Module
Pre Primary	Knowledge and Understanding: People live in places	<ul> <li>The places people live in and belong to, the familiar features in the local area and why places are important to people</li> <li>The reasons some places are special to people and how they can be looked after, including Aboriginal and Torres Strait Islander People's places of significance</li> </ul>	<ul> <li>Responding to Fire – Seeking Help</li> <li>Impacts of Bushfires on Plants and Animals</li> </ul>
Year 1	Knowledge and Understanding: Places have distinct features	<ul> <li>The natural, managed and constructed features of places, their location on a pictorial map, how they may change over time and how they can be cared for</li> <li>How weather and seasons vary between places, and the terms used to describe them</li> </ul>	<ul> <li>Responding to Fire – Seeking Help</li> <li>What Bushfires Like</li> </ul>
Year 2	Knowledge and Understanding: People are connected to many places	Local features and places are given names, which have meaning to people, and these places can be defined on a variety of scales, including personal (e.g. home), local (e.g. street, suburb or town), regional (e.g. state) and national (e.g. country)	Responding to Fire – Seeking Help

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

#### **Cross Curriculum Subjects**

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

Maths: Measurement and Geometry, Statistics and Probability

#### **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 How Bushfires Start

#### **About this Module**

Students view illustrations that help them identify if a fire is safe or unsafe. They identify unsafe items around a campfire and create a list of rules to help make a campfire safe. Students learn that it is important to always seek help from an adult when they spot unsafe fires or unsafe fire behaviour.

#### **Background information**

Fire is a chemical reaction needing three ingredients: Fuel + Heat + Oxygen = Fire When we get an object that will burn; with the right amount of air and a heat source, we get a fire.

The fuel is the substance that is flammable or can burn and can be either solid, liquid or gas.

The heat can be:

- Direct flame
- Radiant heat or heat that is radiated across a space (for example, heat from an electric bar heater igniting clothes that aren't touching the heater but are too close)
- Conducted heat or heat that is transmitted from one object to another by direct contact (for example, a hot car exhaust touching grass and the grass catching on fire)
- Convected heat or heat that is carried through air currents (for example, in a house fire, hot air currents move around the house often igniting more combustible materials).

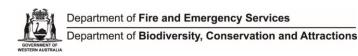
The oxygen comes from the air, which means windy days are the most dangerous for fire.

If one of these is not present, the fire will not start, and if one of these is removed, the fire will go out. A fire in a wood burner will go out when all the wood is burnt and there is no more fuel. A campfire will go out if we pour enough water on it so that there is not enough heat to keep the fire burning. A blanket puts out a fire because it deprives it of oxygen.

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.

Whilst fires do occur naturally, the majority of fires are caused by humans. In the Kimberley the most damaging fires are those in the late dry season. This is because the fuel is dry and burns with more intensity. These are mostly either deliberately or accidentally lit. People are often unaware that campfires and vehicles can create sparks that can lead to a bushfire.

Fires can be safe or unsafe.















#### A safe fire is:

- Lit in a suitable place, such as a fireplace or a specially cleared campfire site
- Has a useful purpose
- Not so large that it is out of control (which usually means the amount of fuel is controlled)
- Being watched and controlled by a responsible adult.

#### An unsafe fire is:

- Lit in the wrong place, for example, a fire near trees or grass
- Lit by children without adult supervision
- Out of control, burning fast and using more and more fuel
- Has no useful purpose (such as cooking or heating)
- Burning without people knowing about it, watching it or controlling it
- Placed where children could fall into it or touch it and get burnt.

A 'safe' fire that becomes uncontrolled turns into an 'unsafe' fire. It is important if you are going to light a fire that you clear the area and have a suitable amount of water available to put it out.

#### **Key Messages**

- A fire is hot and can be dangerous.
- Fire is a tool, not a toy. We should never play with fire.
- Fire is a tool for responsible adults who hold the knowledge and skills to use it.
- We can do things to keep ourselves safe around fire, such as stay away from fire, don't run or play near fire, and don't put anything on the fire.
- Adults need to watch fires to make sure they are safe.
- If a child sees an unsafe fire they should tell an adult fast.

## **Learning Outcomes**

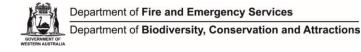
- Students recognise the difference between safe and unsafe fire situations.
- Students understand that fire should only be used by adults who hold the knowledge and skills to use it.

#### Year Level

PP – Year 3

## Things you will need

- Safe and Unsafe Fire illustrations
- Within the Campfire Worksheet
- Find the Campfire Dangers Worksheet















#### Activity One: Safe and Unsafe Fires

- Display the Safe and Unsafe Fire illustrations on the smart board and ask students to decide which fires are 'safe' fires and which fires are 'unsafe' fires. What makes the fire 'safe' or 'unsafe'? (See teacher answer sheet for supporting information). Prompting questions for images, include:
  - What can you see?
  - Where is the fire?
  - What do we use this fire for?
  - Is this a safe fire or an unsafe fire? Why?
  - What could happen next?
- 2. Explain that it is important to always tell an adult if they see an unsafe fire, or see someone being unsafe with fire.

#### Activity Two: Find the Campfire Dangers

 Display the Find the Campfire Dangers worksheet on the smart board and ask students to point out the items/areas that could be unsafe. Using 'Think, Pair, Share' will encourage all students to have input. Alternatively print off the worksheet and get students to work individually on this task.

#### Activity Three: Within the Campfire

 Using the Within the Campfire worksheet, write or draw items and/or rules that make fire safe.

#### **Extension**

 Students create a line drawing of a safe campfire which can be distributed to other students to colour in.

### In the Community

 Teachers choose a completed Within the Campfire worksheet to include in the school newsletter. This should accompany information about what students have been learning in class and why.















## Module One: How Bushfires Start Teacher Answer Sheet

#### Activity One: Safe and Unsafe Fire

Safe and Unsafe Fire Illustrations

Image	Safe or Unsafe?	Answers
1	Unsafe	Fuel (sticks/leaves and grasses) too close to the campfire
2	Safe	Fuel has been cleared away and a border of rocks has been placed around the fire
3	Unsafe	Risk of house catching on fire with open flame inside and no adult present
4	Unsafe	BBQ still too close to house and no adult present
5	Safe	BBQ away from house and adult tending to it
6	Unsafe	Small fire, fuel cleared away and children not too close BUT no adult
7	Unsafe	Petrol used to create a bigger flame, log pile too close
8	Unsafe	Lighters are tools not toys and should not be used by children, lighting dry leaves could spread to nearby long dry grasses and start a bushfire.

## Activity Two: Find the Campfire Dangers

#### Find the Campfire Dangers Worksheet

- 1. No border of rocks around the campfire
- 2. Water bucket is empty (water needed to put the fire out)
- 3. Jerry can is too close (this contains fuel that will cause the fire to become out of control)
- 4. Overhanging branches (that can catch on fire) / Fire is too close to the tree
- 5. Spinifex grass too close to the fire
- 6. Logs are too close to fire; logs are a trip hazard
- 7. Backpacks are too close to the fire
- 8. Campfire is unattended (no adults watching it)
- 9. Leaves and twigs need to be cleared before lighting a fire
- 10. Flames too big (can create embers that can set other things on fire)















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## Module Two Matches are Tools not Toys

#### **About this Module**

Students are introduced to the difference between tools and toys and learn that there are dangerous tools that only adults should use. Students recognise that matches and lighters are included in these dangerous tools, and learn to take action by telling an adult if they find them.

#### **Background information**

Children have a natural curiosity of fire. They see adults start the barbeque, light candles on their birthday cake, and light camp fires for cooking.

With the widespread availability of lighters and matches, a child's curiosity can quickly lend itself to experimentation. Every year many children suffer serious burn injuries as a result of playing with matches and lighters.

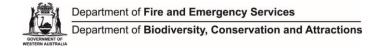
When children play with fire they have little concept of how quickly a small fire can get out of control, nor do they understand the consequences of the fire once it is out of control. Children as young as two years old have started house fires with matches and lighters. Often children playing with matches and lighters cause serious bushfires that threaten their community.

Children need to understand that matches and lighters are tools used by adults and not toys.

Matches and lighters should always be presented as tools having a specific purpose – lighting candles, starting campfires, lighting the barbecue. Parents should provide their children with opportunities to learn how to use matches and lighters as tools as they get older, but always with their help and supervision.

## **Key Messages**

- Tools are something we use to do a job.
- There are some tools that are too dangerous for children to use, such as lighters and matches.
- Children should never play with matches or lighters, as they may be seriously injured or damage property.
- Matches and lighters must be kept out of reach of children.
- Children should always hand unattended lighters and matches to an adult.
- All big fires start as small fires and can spread quickly.















#### **Learning Outcomes**

- Students are able to distinguish the difference between a tool and a toy.
- Students understand that matches and lighters are not toys.
- Students are able to describe what actions they must take if they find lighters and matches.

#### Year Level

PP – Year 3

## Things you will need

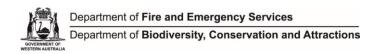
- A variety of classroom tools and toys to display
- Tools and Toys illustrations
- Fire Progression illustrations

#### **Activity One:** *Tool or Toy*

- 1. Display a collection of tools and toys on a table and get students to groups them into tools or toys. Discuss the idea that tools are something we use to do a job.
- 2. Ask students to do a hunt around the classroom, can they find any other tools or toys?
- 3. Ask students, what tools might they find at home? Who uses it? Child or parent? Are there any special safety measures that they or their parents take when using tools?
- 4. Introduce the idea that there are some tools that are just too dangerous for children to use. Ask students to make a list of these tools. Lighters and matches should be included in this list. Ask students why they think these tools are too dangerous.

## Activity Two: Tell an Adult as it's not okay!

- 1. Play a responding game using the **Tools or Toys** illustrations. Explain you will display an image and say, "Hey look, it is a \_\_\_\_\_\_." The teacher will fill in the blank each time with a different item. The children will respond with one of the following three statements and make the correct action:
  - Stay and play (YAY! with arms waving)
  - Step away (take one step back)
  - Tell an adult "It's not okay!" (take two steps back with hand at mouth to call an adult).
- 2. Print and pin these images to a classroom board under the headings, 'Stay and Play,' 'Step Away' and 'Tell an Adult.'















#### Activity Three: Matches and Lighters are Tools not Toys

- 1. Ask students what lighters and matches are used for. Discuss the idea that lighters and matches are used by adults to start safe fires. For example, fires for heating or cooking, candles on a birthday cake, candles on the dining table.
- 2. Ask students what might happen if they 'play' with lighters and matches. Explain that all big fires start as small fires that can easily get out of control.
- 3. Use the **Fire Progression** Illustrations to show how small fires can easily become big fires if proper care is not taken. Ask students:
  - What can you see?
  - What has happened?
  - Why has this happened?
  - How does each child react?
- 4. Get students to work together in small groups to design some rules about what to do if they find lighters and/or matches within their reach.

#### **Extension**

• Students create a short imaginative or informative text using the **Fire Progression** illustrations as the stimulus.

#### In the Community

- Ask students to design a poster telling other young people what to do if they find lighters or matches. Place these posters around the school grounds.
- Ask students to carry out a home safety survey, looking to see if there are any lighters and matches in places where children can reach them. Remind students to remember their rules and act on them. Share their findings with the class.















## Module Three Responding to Fire – Seeking Help

#### **About this Module**

Students are introduced to the concept of a fire emergency and learn how to respond in an appropriate manner by taking part in activities that include a Triple Zero role-play.

#### **Background information**

An unsafe fire that risks someone's life or their property is an emergency. Fire emergencies should be reported immediately as fire spreads quickly.

Children should not try to put out a fire. Instead children must tell an adult immediately that there is a fire. If there is no adult around, children must call the emergency telephone number zero, zero, zero (Triple zero) to alert the Fire Service of the fire.

If your community is not serviced by a fire brigade, talk with your school administration team and the community board to decide on the best way to alert adults of a fire in your community and surrounding area. It may be that students are encouraged to tell someone at the shop, office, or ranger base (make sure that whoever you are sending the children to knows what to do and who to call in this situation).

Even if the child is involved in lighting a fire, it is really important they tell an adult or call Triple Zero. The quicker an unsafe fire is reported, the quicker firefighters can start trying to put it out and keep people safe.

When you call Triple Zero you will be connected to an operator who will ask you if you need Police, Fire or Ambulance. You will then be connected to an emergency services operator who will ask you questions about your emergency. The operator will ask you for your name and telephone number.

- Stay calm. Don't shout. Speak slowly and clearly.
- Tell the Fire Service exactly where to come. Give an address. If you don't know the address, look around you and see if there are any landmarks that you know. What is the street/road name? Are you opposite a house? Is the fire in parkland/bushland?
- Tell the operator what you know about the fire.

Firefighters in the Kimberley are often volunteers who do not live at the Fire Station. There may be a longer delay before the fire truck can respond to the fire, as firefighters travel from home or work to the Fire Station.

Children must not wait near the fire until the fire truck arrives. They must move as far away from the fire as they can, telling an adult as soon as possible.

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#### **Operator Script**

Here is an accurate example of an Operator Script which you can use in the classroom to help with your role play, otherwise use the simplified text provided in Activity 3. Note, that if you live away from town there will be a delay in the arrival of the fire service.

Operator: Emergency. Police, fire, ambulance?

Caller: Fire

Operator: Fire emergency. What is the exact address of your emergency?

Caller: [your address - include town and state in your answer]

Operator: What is your name?

Caller: [your name]
Operator: What is on fire?

Where is the fire?
Can you get out of the hor

Can you get out of the house? Is anyone else inside the house?

Caller: [provide details]

Operator: This is very important. You need to get out of the house, away from the

fire.

Get down on your hands and knees. Crawl to the door and get outside.

Shut all the doors behind you. Do you understand?

Caller: [Yes]

Operator: OK. We have crews on the way. Hang up now and get out of the house

and go to your meeting place (e.g. letterbox) and wait for the arrival of

the fire trucks.

#### **Key Messages**

- If children see an unsafe fire they should tell an adult immediately.
- Children should not try to put a fire out, as they could easily get burnt.
- Children must move away from the fire and not wait for firefighters to arrive.
- Children must tell an adult immediately if there is a fire, even if they are involved in lighting the fire
- If a child cannot find an adult, they must call zero, zero, zero (Triple Zero).
- Never call Triple Zero for fun or a prank. There are serious consequences for you and for other people who might be in need of help.

#### **Learning Outcomes**

- Students understand a fire emergency is an unsafe fire that puts someone's life or property in danger.
- Students know to seek help from an adult when there is an unsafe fire, even when they took part in lighting the fire.
- Students demonstrate how to call Triple Zero in an emergency.















#### Year Level

PP – Year 3

#### Things you will need

• Where I Live worksheet

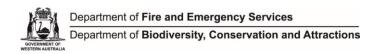
#### Activity One: What is an Emergency

- Ask students, "What is an emergency? What kinds of emergencies are there? Have you ever experienced an emergency?"
- 2. Explain that an emergency is when:
  - Someone is badly injured or very unwell
  - Your life or somebody else's life is in danger
  - There is a serious accident or crime taking plan
- 3. Explain that a fire emergency is an unsafe fire that puts someone's life or property in danger.
- 4. Lead students in a guided discussion about 'Triple Zero':
  - What should you do if there is an emergency?
  - Who can you ask for help?
  - Is there a phone number you can call in an emergency?
  - Where can you find a phone to use? Shop, school etc.
  - What sort of questions do you think the emergency operator asks?
- 5. Reinforce with students that it is important to move far away from the fire and report it from a safe place.

## Activity Two: Location, Location, Location!

- 1. As a class, list all the things an emergency operator will ask. These will include their name, location, type of incident, description of incident.
- 2. Explain that location might be different to where you live. If a student does not know the address of their current location, they might need to describe where they are and what they
- 3. Using images from picture books or photographs of your local community show a particular setting. Practise with students how to describe a location using descriptive words like 'between', 'near', 'next to', 'toward' or use a simple map.
- 4. Go outside and take students to different locations within your school buildings and grounds. Get student to take turns describing their locations, what we can see, what things look like and where different things are.

Note: For remote communities, without a fire station, the priority will be for students to tell an adult rather than contacting Triple Zero. You could change the focus of this activity from describing their location to a Triple Zero operator to explaining their location to an adult.















#### Activity Three: Triple Zero Role Play

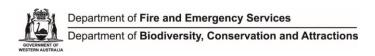
- 1. Students sit in a circle facing each other. Explain that this game is very similar to 'duck duck goose.' A student walks around tapping each person's head whilst saying either 'Safe' or 'Fire'. Once someone is tagged 'Fire' they have to jump up and pretend they are dialling zero, zero, zero.
- 2. The teacher plays the role of a Triple Zero Operator. Students need to pretend there is a fire at the school. *Teacher script for the role play:* 
  - "You have dialled emergency triple zero. Your call is being connected."
  - "Emergency. Police, Fire, Ambulance?" [Student responds]
  - "What town and state is the emergency in?" [Student responds]
  - "Connecting Fire."
  - "Fire Emergency. What is the exact address of the fire?" [Student responds]
  - "What's your name?" [Student responds]
  - "Can you describe where the fire is?" [Student responds]
  - "Firefighters are being sent to that address."
- 3. Once a student completes their role-play, they can be the person who decides who is next by walking around the circle tapping heads.

#### **Extension**

Students write an acrostic poem using the word 'Emergency.'

#### In the Community

- If possible, organise a trip to community local services, for example, police station, ambulance centre or fire station. This would give students the chance to engage with their local emergency services and ask them questions about their role.
- Students complete the Where I Live worksheet with family members.

















## **Module Four** What Bushfires Like

#### **About this Module**

Students view illustrations that help them identify the weather that creates bushfire danger days, and then create a seasonal calendar to identify possible unsafe fire times throughout the year. Students are introduced to the concept of Fire Danger Ratings as a tool to tell people when it is not safe to light a fire.

#### **Background information**

Wind, temperature, humidity and rainfall are weather elements that affect how bushfires behave. Low humidity, high winds and lack of rain all contribute to increased fire danger. Bushfires are more common during certain times of year, when these weather conditions are more common.

Sunshine and high temperatures of the late dry season rapidly dry out grass, shrubs and trees which then burn very quickly. Strong winds force the fire along, by providing the fire with more oxygen. Wind promotes the rapid spread of fire by blowing embers kilometres ahead of the main bushfire, creating new fires ('spotting' or 'spot fires').

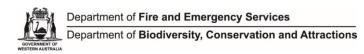
Changes in wind direction can turn a bushfire in a new direction, causing the flames to go from being under control to out of control within minutes. These conditions can push a bushfire towards houses or a town and put firefighters and local people in danger.

In Australia there is a system of assessing the 'fire danger' called Fire Danger Ratings. The Fire Danger Rating is based on the forecast weather conditions and provides an indication of the possible consequences of a fire, if one was to start. The higher the fire danger rating, the more dangerous the fire conditions will be if a fire were to start.

There are six categories in the Fire Danger Rating, ranging from Low-Moderate to Catastrophic. Low-Moderate is at the lowest end of the scale. In these conditions fires are most likely to be controlled and most homes will provide safety.

At the other end of the scale the 'Catastrophic' rating indicates the worst conditions for a bush or grass fire. 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. Homes are not designed or constructed to withstand fire in these circumstances so it is safest to leave early for a safer place well before fire impacts on the community.

Understanding the Fire Danger Rating categories and what they mean and how different weather conditions influence the Fire Danger Rating helps us to make decisions about what to do if a bushfire starts. 25















When the rating is low you may only need to monitor conditions and leave for a safer place if necessary. 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. It is also advised to avoid camping or travelling in bush and forested areas in these weather conditions, even if there is no bushfire, as once ignited a fire would move very fast.

Fire Danger Ratings apply for a 24 hour period and are issued each day by the Bureau of Meteorology. They are publicised by the Department of Fire & Emergency Services when there is a rating of Severe, Extreme or Catastrophic. The Fire Danger Rating for your area can be found on <a href="EmergencyWA"><u>EmergencyWA</u></a>.

Fire Danger Ratings are important as they provide us with information about when it is safe to light fires in the open air. Campfires 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. You can check if your local government has a ban on the <a href="EmergencyWA">EmergencyWA</a> website.

#### Yawuru seasons

- Man-gala wet season. Summer: December-March. Monsoonal weather.
- Marrul hot season. Late summer: April. High tides and hot weather.
- Wirralburu dry season. Autumn: May.
- Barrgana cold season. Winter: June-August.
- Wirlburu warming season. Spring: September.
- Laja hot season. Summer: September-November.

N.B. 'The Yawuru people are the native title holders of the town of Broome, including areas of local land and sea in and around the location'<sup>1</sup>. When looking at the seasons, check with Aboriginal and Torres Strait Island Elders to ensure you are referring to the seasons in your local area.

## **Key Messages**

- Bushfires can start at any time but are most dangerous and harder to control at certain times of the year. We call this the 'bushfire season.'
- The bushfire season in the Kimberley is during the dry season, from July until the first rains of the wet season (usually November).
- Hot, dry weather and strong winds all increase the chance of a bushfire spreading quickly.
- It is important that no one lights a fire when the weather is unsafe.

<sup>&</sup>lt;sup>1</sup> Indigenous weather knowledge (<a href="http://www.bom.gov.au/iwk/calendars/yawuru.shtml">http://www.bom.gov.au/iwk/calendars/yawuru.shtml</a>)















#### **Learning Outcomes**

- Students understand how the weather can increase bushfire danger and create unsafe fire conditions.
- Students recognise that fire can be more dangerous during different seasons of the year.
- Students understand the Fire Danger Rating helps to keep us safe as it tells us of the level
  of bushfire danger on a particular day.

#### Year Level

• PP - Year 3

#### Things you will need

- Weather Conditions Illustrations
- Fire Danger Rating slideshow
- Seasonal Calendar worksheet
- Access to internet to view Emergency WA website













#### Activity One: Spot Bushfire Danger Days

- 1. Ask students to recount what makes a safe and unsafe fire and introduce the concept of when it is unsafe to have a fire.
- Using the Weather Conditions' illustrations explain how weather can be dangerous for 2. bushfires, making sure students understand dry and windy conditions are the most dangerous for bushfires, (See teacher answer sheet for supporting information). For each illustration ask students to:
  - Describe the weather they see in each illustration
  - Describe what else can they see in the illustrations (length/colour of grass, animals)
  - Decide if the conditions increase bushfire danger
- After viewing the images review the following with students 3.
  - If you require fire for reasons like heat or cooking, who should be the person to light it? (responsible adult)
  - What weather conditions might make this fire unsafe? (hot, dry, sunny, windy weather)
  - How do we make sure the fire does not become unsafe? (never leave it unattended, always have an adult present, consider the weather conditions before lighting the fire)

#### Activity Two: Seasonal Calendar

- Using the Seasonal Calendar worksheet, ask students to develop a calendar representing the different seasons in their community. (See the teacher answer sheet for supporting information). In the outer circle, fill in the names for each of the local Aboriginal seasons.
- Ask students about changes they notice in the plants, animals and weather at different times 2. of year. It would be worth taking the students for a walk around the school grounds to help them answer the questions for the current season.
  - What colour is the grass?
  - Are plants flowering?
  - What are the animals doing?
  - What birds do you see? Are they nesting?
  - Which months have the most rain?
  - When is it driest?
  - When is it windiest?
  - When do bushfires happen?
- 3. Colour and cut out the small pictures at the bottom of the worksheet, and glue them onto the inside circle to match up with the appropriate season. Some pictures may fit in multiple places, let students explain their choice. Students may wish to draw or write other seasonal events onto the calendar.
- 4. Using their calendar, ask students' "when do you think it would be most unsafe to light a fire?" (including a campfire or a fire for cooking).
- Ask students to include these 'unsafe fire times' on their calendar. 5.
- 6. Discuss with students what they could do if someone was lighting a fire when it was an unsafe time.















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#### Activity Three: Introducing Fire Danger Ratings

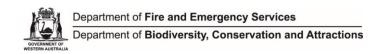
- 1. Use the **Fire Danger Rating** slideshow to introduce the Fire Danger Rating scale. (See the teacher answer sheet for supporting information).
- 2. Using the first image, ask students:
  - Have you seen this sign before? Where?
  - What do you think the colours mean?
  - How do you think the sign keeps us safe? (Tells us when it is not safe to light a fire, tells us the higher the fire danger rating, the more dangerous a fire will be if it starts)
- 3. As you are working through the images, have students guess what the likely Fire Danger Rating would be for each set of conditions (more than one answer is possible).
- 4. Using the last slide, explain that a day's bushfire rating 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 Fire Danger Rating can also help us make decisions about what to do if there is a fire.
  - At what Fire Danger Rating would it be unsafe for anyone to light a fire, including a campfire or a fire for cooking?
  - What could they do if someone was lighting a fire during an unsafe time?
- 5. Using <u>EmergencyWA</u>, show students what the fire danger rating is for that particular day. Use the days' weather conditions to discuss the reason for the rating on that day.

#### **Extension**

 Wind speed has a significant influence on fire behaviour. Students can conduct a simple science experiment by making an anemometer to measure wind speed in the school yard. There are numerous examples on the internet on how to do this. One example can be found on the <u>Science Buddies</u> website. This could be further extended by adding a thermometer and rain gauge to create a school weather station to monitor as a class project.

## In the Community

- Work with students to help them find the location of the fire danger rating signs in their community. Find out who is responsible for changing this sign and learn more about their role in the community.
- Students can make a class fire danger rating sign using cardboard and paint to be displayed at school. Each morning, the class visits EmergencyWA to find out the current fire danger rating in their location. Students can be assigned the task of 'fire monitor,' which involves changing the rating on the school sign. To make this an ongoing project, invite other classes to get involved in the process.

















## Module Four: What Bushfires Like Teacher Answer Sheet

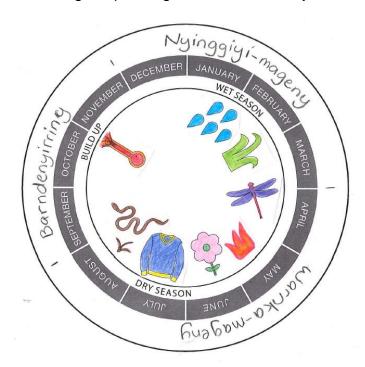
## Activity One: Spot Bushfire Danger Days

Weather Conditions illustrations

Image	Season	Description
1	Wet Season	Clouds and rain. Lots of long green grasses and shrubs, green tree frog
2	Early Dry Season	Hot sunny clear day, no wind. Grass still long but starting to dry out, dragonfly
3	Dry Season	Hot sunny clear day, no wind. Less grass, very dry grass, shrubs and trees, Frill-neck lizard. Increases bushfire danger, dry plants burn very quickly.
4	Dry Season	Hot sunny clear day, strong winds. Less grass, very dry grass, shrubs and trees, Frill-neck lizard. Increases bushfire danger significantly, wind makes fire spread very quickly.

## **Activity Two: Seasonal Calendar**

The following seasonal calendar example is for the Kununurra area and includes the Miriwoong seasons. Calendars will change depending on the location of your school.















## **Activity Three: Introducing Fire Danger Ratings**

## Fire Danger Rating Slideshow

Slide	Image	Information
1	Introduction slide	Signs are generally found on the side of a main road at the
		entry into a town or community. It tells us when it is not safe
		to light a fire. It also tells us that the higher the fire danger
		rating, the more dangerous a fire will be if it starts.
2	Wet Season	Bushfire risk - Low/moderate. Fires less likely to start, if they
		do, they are likely to be contained/controlled quickly and most
		homes will provide safety.
3	Early Dry Season	Bushfire risk - High/Very High. If fires start, they are likely to
		be contained/controlled quickly and most homes will provide
		safety.
4	Dry Season	Bushfire risk - Very High/Severe. Expect dry conditions. If a
		fire starts and take hold, it may be uncontrollable. Do not light
		campfires.
5	Dry Season (with	Bushfire risk - Severe/Extreme/Catastrophic. Expect
	strong winds)	extremely hot, dry and windy conditions. If a fire starts and
		takes hold, it will be uncontrollable, unpredictable and fast
		moving. Do not light campfires.
6	When not to light	Reinforce the message that you should not light fires in the
	fires in the open	open air if the Fire Danger Rating is Very High or above. If the
	air	fire escapes and spreads' it will be difficult to control and may
		threaten lives and property.















## Module Five Impacts of Bushfires on Plants and Animals

#### **About this Module**

Students learn that plants and animals are impacted by fire in both a positive and negative manner. A fun energetic game allows students to act out how some predators benefit from fire, while a creative activity focuses on the importance of plants as food and shelter for animals.

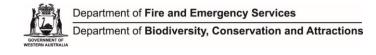
#### **Background information**

Changing fire regimes can have a significant impact on Kimberley wildlife. Extensive hot fires affect animals directly with exposure to heat, flames and smoke, and by destroying shelter and food over such a large area that animals cannot easily relocate following a fire. Animals may also be indirectly impacted by reduced availability of shelter and vegetation cover, making them more vulnerable to predation, increasing competition for nest or den sites, or forcing them to abandon their young temporarily or permanently as they travel to find food.

Large animals that can move quickly and travel large distances often escape fires by running, hopping or flying away. Some smaller species survive by hiding in burrows or tree hollows which can protect them if the fire is not too hot and passes quickly. If the fire is patchy, as is the case with most early season fires, displaced animals that survive the fire itself are able to find food and shelter in unburnt areas until the burnt areas start to recover. Species such as wallabies seek out this sort of environment, using the unburnt areas for shelter whilst feeding on new growth in the burnt area. Where a fire has burnt out a large area without leaving any patches of unburnt vegetation, animals that survive the initial fire are at risk of starvation, exposure, and predation.

Birds of prey, such as kites, are often observed hovering above a fire and catching prey species as they try to escape. Feral cats are also known to run towards the fire front in search of easy prey. Northern quolls and Frill Neck lizards are also attracted to recently burnt areas where prey is easily visible. If severe fires occur too frequently, however, even species that usually benefit from fire may end up being affected as their prey species decline in numbers and other resources such as large trees for nesting become less numerous.

Many Kimberley plants require fire for germination and are well adapted to survive a fire in the landscape. However, changing fire patterns resulting in frequent hot bushfires can cause widespread and sometimes irreversible damage to bush land, resulting in habitat loss and contributing to the loss of rare and endangered species.















#### **Key Messages**

- Fire can kill animals that get caught in its path.
- Fire can destroy animals' homes and food so they may not be able to survive afterwards.
- Some predators like fire because it is easier to catch their prey.
- Plants are important food and homes for animals. Some plants are used to fire and can grow back quickly. Others will take a long time to grow back or might never grow back.

#### **Learning Outcomes**

- Students can list positive and negative ways that a fire may impact animals.
- Students understand that an animal's home is important for its survival, and that fire can have a negative impact on this home.

#### Year Level

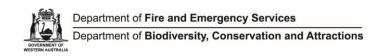
PP – Year 3

#### Things you will need

- Habitat Photographs
- Kimberley Fire Signs
- Flora and Fauna Fact File slideshow from Year 4 6 Module three (optional)
- Hoops, chalk and beanbags
- Plasticine

### Activity One: Are Animals Impacted?

- 1. Recap, what do people do to protect themselves and their homes if a fire was nearby? What might animals do? (run/fly/hop away, hide in a burrow, hollow or tree top). You may like to use the **Flora and Fauna Fact File** slideshow from the Year 4 6 Module Three lesson plan to prompt discussion about local animals with students.
- 2. Display the hot burn **Habitat Photograph**. Do you think animals would want to live here? Why/why not?
- 3. Which animals would be most affected by fire? (small/slow ones) Why? (they can't run/fly away)
- 4. Why do we see lots of kites circling above a fire? (They are a bird of prey that like to catch prey species as they try to escape a fire)
- 5. What animals live in your local area? Where do they make their homes? What do they eat? What might happen to their homes/food if a fire came through?















#### Activity Two: Animal Escape

This is an energetic game demonstrating what happens when animals get caught in the path of a fire. The following instructions are written for a class of 10 to be played on half a basketball court.

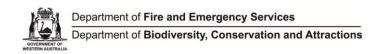
- 1. All students line up at one end of the basketball court.
- 2. Two students are given the role of FIRE. They must hold hands at all times, and try and tag the other students (who are ANIMALS). The FIRE can start in the middle of the basketball court.
- 3. When the teacher calls 'Go!', all the ANIMALS try to run to the other side of the basketball court without getting caught by the FIRE. You may also choose to make animals hop / crawl / flap in character.
- 4. Any animals that get caught by the fire are dead. They can join hands with the fire for the next round (as the fire grows), or they could be allocated the role of KITE or FERAL CAT. Kites and feral cats can only move around the outside lines of the basketball court and try to catch the animals as they escape from the area. Any animal tagged by a kite or cat is also dead (they can either sit out or become more kites / cats to represent more predators being attracted to the fire as the fire grows).
- 5. You may also like to use hoops / chalk to mark SAFE ZONES (burrows or hollow logs) on the basketball court where a single animal can shelter from the fire for that particular round (for older students you could add in that if the fire completely surrounds the safe zone the fire is just too hot for the animal to survive so it will die anyway). Other options include stationing bean bags as 'food' that animals must collect as they cross the basketball court, and any animal reaching the other side without any food will starve afterwards.

### Activity Three: What Happened to my Home?

- 1. Display the **Habitat Photographs** (unburnt, patchy burn, hot burn) on the smart board
- 2. Ask questions about the plants in the pictures:
  - What animals might live here?
  - What would they eat?
  - Where are their homes?
  - What are the differences and similarities between the three pictures?

(See teacher answer sheet for supporting information)

- 3. Students choose a local animal to model out of plasticine.
- 4. Print out the habitat photographs and ask students to place their models in front of the habitat they think their animal would most like to live in, and explain why.
- 5. Ask students:
  - Which habitat/s did most students choose? Why?
  - What might happen to the animals if the same area kept on getting burnt again and again every year?















#### **Extension**

Students choose one native animal to research. Students should find out where they live, what they eat, how they move and if they are vulnerable or endangered. Would this animal be able to escape easily from a fire, where would it go, would it hide or run? Could a fire threaten the survival of this species?

#### In the Community

- Display the Kimberley Fire Signs on the smart board and ask students to think about what the messages mean and how signs like these help the animals. Then get students to pick a local animal and come up with their own slogans. Students can make posters with the animal and slogan to stick up around their community. Is there local sponsorship available to make the students' posters into signs for the community?
- Build/create animal habitats in the school community such as insect/bee hotels, bird boxes, frog ponds, etc, which are monitored for use, to encourage a love for local wildlife in the school community.















## Module Five: Impacts of Bushfires *Teacher Answer Sheet*

## Activity Two: Are Animals Impacted?

#### Habitat Photographs

Image	What it shows	Description
1	Unburnt	Green area at the end of the wet season. No recent fire activity.
2	Cool fire/ 'Patchy burn'	A prescribed burn at the end of the wet season. Green grass and cooler weather slow the spread of the fire. The fire only burns small patches at a time, but together these small burnt areas reduce the fuel load to reduce the likelihood of late season hot fires.
3	Hot fire	Late season bushfire. Covers a larger area, removing all vegetation (plants) and leaving bare soil.











