



Bushfire Safety



Understanding Bushfires

Name: _____

Read the information below then answer the questions on pages 2 and 3.

How do bushfires start?

Most bushfires start from things such as lightning, matches, or electricity. Like any fire, a bushfire is a chemical reaction that needs three things to burn:

1. Oxygen – we need oxygen to survive and so do fires.
2. Fuel – anything that burns (leaves, wood, gas bottles) is fuel and will 'feed' a fire.
3. Heat – intense (strong, fierce) bushfires make more heat, can become harder to control and will cause more damage.

Bushfires can start at any time, but can be more dangerous in particular areas and at certain times of the year. The strength and power of a fire depends on three things:

1. Vegetation – this can affect the heat and speed of a bushfire. For example, a bushfire in a forest filled with heavy undergrowth will be different to a bushfire in grassland or coastal scrub.
2. Weather – extreme heat, low humidity, strong winds and low rainfall increase a bushfire's intensity and how fast it spreads.
3. Topography (land characteristics) – fires move faster and with greater strength up slopes than they do on flat ground or downhill.

How do bushfires spread?

Bushfires spread in three ways: direct flame contact, radiant heat and burning embers.

1. Direct flame contact – flames touch unburnt fuels and raise their temperature so they ignite (catch fire). This can happen faster when the wind blows the flames ahead or when the fire is travelling uphill.
2. Radiant heat – radiant heat is the heat you feel from a bushfire and it can cause the temperature of fuel to increase enough for it to catch fire. This can happen even before the fire reaches the fuel.
3. Burning embers – embers are burning leaves and twigs which are carried by the wind and cause small fires to start where they land. If the small fire is not put out it can smoulder, grow and spread. Embers are carried ahead of the actual fire (sometimes up to 30km ahead) by wind and can land on flammable material. Embers are the main reason houses burn down in bushfires and they can happen before, during or after the actual fire passes.



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1. The understanding bushfires information mentions three ways in which a bushfire can start. What are they?

1. _____
2. _____
3. _____

2. What does a bushfire need to start and stay alight?

3. According to the information, what can make a bushfire more dangerous?

4. How does vegetation affect a bushfire?

5. What weather conditions can increase a bushfire's intensity?

6. What is topography?



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7. What are embers and how do they cause fires?

8. From the information provided, describe what you think would be ideal conditions for a bushfire.



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Solutions

Bushfire Safety Crossword – Level 1

1	E	X	T	R	E	M	2	E		3	B	
	M							M			U	
4	B	A	5	D		6	C	L	E	A	R	
	E		A					R			N	
	R		Y					G				
	S		7	S	L	O	P	E	S			
		8	H					N				
		E			9	B	A	C	K	U	10	P
		L			A			Y				I
		11	P	L	A	N			12	A	C	T

Bushfire Safety Crossword – Level 2

1	E	M	2	E	R	G	E	N	3	C	Y						
	X		L					H		4	H	5	D				
6	T	R	E	E	7	S		8	E	M	B	E	R	S	A		
	R		C		A			M		A					N		
	E		T		F			I		9	S	T	R	O	N	G	
	M		R		E			C								E	
	E		I					A		10	P	O	W	E	R		
		11	A	C	T		12	R	U	L	E	13	S			O	
14	P		I									L				U	
15	R	A	T	I	N	G			16	H	O	M	E			S	
	E		Y						17	P	P						
	P				18	I	G	N	I	T	E			19	W	20	P
	A		21	D					T	22	S	C	H	O	O	L	
23	R	E	A	D	Y									O			A
	E		Y				24	P	R	E	P	A	R	E	D		N

Understanding Bushfires Solutions

1. Lightning, electricity and matches.
2. Oxygen, fuel and heat.
3. The area or time of year.
4. Vegetation can affect the heat and speed of a bushfire.
5. Extreme heat, low humidity, strong winds and low rainfall.
6. Topography is the land characteristics of an area.
7. Embers are burning leaves and twigs which are carried by the wind. They cause small fires where they land if they are left to smoulder.
8. Teacher check.