

Causes & factors in wildfires, impacts & responses 3.1.5.5 ANSWERS

Q1	<i>True or False?</i>	
A	All wildfires are ignited as a result of a natural cause.	False
B	Dry, hot, windy weather provides the ideal conditions for a wildfire event.	True
C	Global warming is forecast to make wildfire events more likely.	True
D	Wildfires can jump across open space and ignite new fires some distance away.	True
E	Some types of vegetation rely on wildfires for reproduction to take place.	True

Q2	Match the correct term to the correct definition	
A	The act of reducing the severity of an event.	Mitigation
B	A state of readiness in preparation for an event.	Preparedness
C	The act of stopping something from happening.	Prevention
D	Where the local climate is calm as sinking air blows out of the area.	High pressure
E	The act of changing in order to cope with a new situation.	Adaptation
Select from: Preparedness Mitigation Prevention Adaptation High pressure		

Q3	One sentence is incorrect in each of the explanations below. Identify the wrong one.	
A	High pressure systems cause very calm hot conditions over the summer months in many places. This focused heat on the ground creates conditions for a fire. Often, a cigarette butt will be discarded and this will be the main cause, and the subsequent wildfire will spread quickly. These fires are easy to contain.	No wildfire is easy to contain, hence the term – meaning ‘uncontrolled natural fire’. From an initial flame, the wildfire can spread several miles across in a matter of hours. The initial cause is unlikely to be found before the spread occurs due to many fires starting in remote areas.
B	Fast spreading fires cause human fatalities with some trapped in their houses. Some are killed by burns with many overcome by the smoke associated with the fires. Agricultural land is also burnt, but most livestock will survive, having evacuated the area as they are sensitive to the first signs of smoke.	As wildfires have no distinct pattern to their movement and are often changing direction according to the prevailing winds at the time and the land use it travels across; many farmers are ill prepared to deal with the fires and have to evacuate their farms at the last minute, often leaving their livestock to perish.
C	Fires spread quickly, particularly in dense forested areas. They can crawl through low lying shrubbery and can spread underground through brush fuel. When fires reach gaps between trees, for example, road networks, this acts as a boundary and will restrict the spread of a fire to a larger area.	Fires can leap across roads to nearby forests. This occurs as a result of leaves and branches catching fire on one side of the road, falling to the ground and then being carried over the road by the wind, which then ignites that forest as well. Glowing cinders can spread fires much further carried on the wind.
D	There are many methods that can be used to control and extinguish a wildfire. These include using a fire retardant dropped from a helicopter or plane. Also, constructing a fire break to act as a barrier that is wide enough to avoid windblown cinders. The fire retardant is particularly effective and all countries at risk of wildfires use this method a lot.	Fire retardant is effective, but also very costly and for areas prone to large fires it can take a long time to apply.
E	Global warming is likely to increase the likelihood of future forest fires in certain areas where these hazards already exist. This is purely down to a reduction in rainfall, leaving vegetation drier and hotter weather. It may extend wildfire risk to new areas that haven't been at risk before.	This is the main reason why wildfires will occur more often but the impact of global warming on this issue is much more complex. Global warming will lead to shorter winters, meaning less snow and water storage in soils, leaving vegetation a lot drier at the start of the summer season. Also, lightning strikes will become more prevalent, which will trigger forest fires.

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Q4	Decide which heading the various wildfire impacts match with:	
	Primary impacts	Secondary impacts
	Human deaths	Tourism losses to area
	Crop destruction	Psychological impact on people
	Property destruction	Businesses remain closed
	Habitat destruction	Atmospheric increase in CO2
		Water catchment contamination
	Human deaths	Tourism losses to area
		Water catchment contamination
	Psychological impact on people	Businesses remain closed
		Crop destruction
	Property destruction	Atmospheric CO2 increase
		Habitat destruction

Q5	Think about the short and long-term responses to wildfires
A	<p>Short term responses:</p> <p>Firefighters on the ground and water drops from planes</p> <p>Evacuation</p> <p>Search & rescue</p> <p>Provide refuge away from the area – shelter, food and water.</p> <p>Regular updates re: direction of wildfire</p>
B	<p>Long term responses:</p> <p>Medical and psychological support for people</p> <p>Rebuilding properties</p> <p>Improving infrastructure to reduce future fire risk in future (electricity cables etc.).</p> <p>Making properties fire retardant – introducing new codes of practice.</p> <p>Constructing underground fire refuge havens to remote properties.</p> <p>Regular clearing of brushwood from beneath forests.</p>