

Fire: Keeping safe

This task is about identifying fire hazards, and using what you know about fire to suggest ways to make a situation safer.

If we know what causes fires we are more likely to be able to manage the risk of a fire starting.


For a fire to start, three things have to be present:

- a source of heat
- fuel
- oxygen

This is often called the fire triangle.



Tick all the things that could provide **fuel** for a fire (they burn easily).

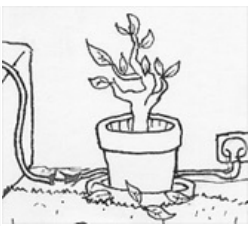
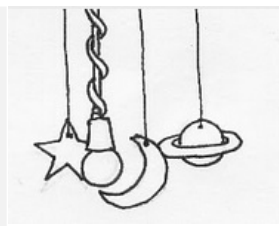
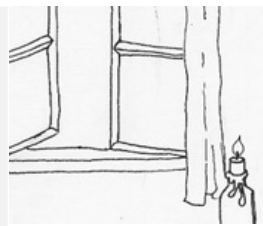
<input type="checkbox"/>  light bulb	<input type="checkbox"/>  curtain	<input type="checkbox"/>  pillows	<input type="checkbox"/>  candle	<input type="checkbox"/>  lamp
<input type="checkbox"/>  space mobile	<input type="checkbox"/>  frayed cord	<input type="checkbox"/>  dead leaves	<input type="checkbox"/>  paper	<input type="checkbox"/>  heater



Tick all the things that could provide **heat** to start a fire.

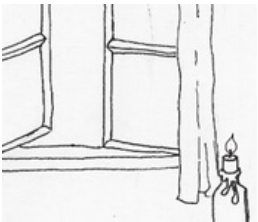
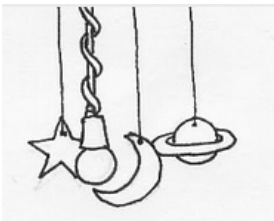
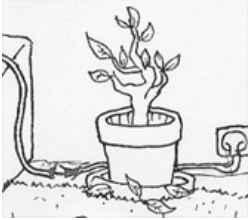
<input type="checkbox"/>  <p>light bulb</p>	<input type="checkbox"/>  <p>curtain</p>	<input type="checkbox"/>  <p>pillows</p>	<input type="checkbox"/>  <p>candle</p>	<input type="checkbox"/>  <p>lamp</p>
<input type="checkbox"/>  <p>space mobile</p>	<input type="checkbox"/>  <p>frayed cord</p>	<input type="checkbox"/>  <p>dead leaves</p>	<input type="checkbox"/>  <p>paper</p>	<input type="checkbox"/>  <p>heater</p>

Three places are shown where a fire could easily start in the room.
Choose **one**.

<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 
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Use the fire triangle to explain why this area is a fire hazard.



A part answer mentions one part of the fire triangle

A better answer discusses the closeness of a fuel to a heat source.

An excellent answer also includes the role of air or oxygen.

Examples

- A candle (**heat source**) might start a fire.
- The curtain (**fuel**) could catch fire.
- The window is wide open so there is lots of air (**oxygen**).

Examples

The curtain (**fuel**) is close enough to the candle's flame (**heat source**) that it could catch alight.

Examples

The curtain (**fuel**) is close enough to the candle's flame (**heat source**) that it could catch alight. The open window means that there is plenty of **oxygen** to keep the fire burning.

The space mobile (**fuel**) could catch fire.

The bulb (**heat source**) can get hot enough to set the decoration (**fuel**) hanging by it on fire.

The bulb (heat source) has got no shade on it so can set the decoration (**fuel**) hanging by it on fire. The open window lets in air (**oxygen**), which is needed for the fire to keep burning.

Frayed cords sometimes spark (**heat source**).

If the frayed electrical cord sparks (**heat source**) the dry leaves (**fuel**) nearby could catch fire.

The frayed electrical cord could spark (heat source). Dead leaves (**fuel**) are very dry and catch fire easily. Oxygen is also needed for fire to burn, and the open window gives a good supply of this in the room.

Use the rubric above to decide how well you answered the question. Tick the box which best describes your answer. (Choose one). If you are not sure, discuss with a friend.

Here is your answer:



No parts of fire triangle identified



Part answer



Better answer (2 parts of fire triangle)



Excellent answer (3 parts of fire triangle)

Here are some fire hazards that might be found in **your** bedroom.

- frayed electrical cord
- overloaded power outlet
- candle
- cigarette lighter
- glue or solvents
- bar or gas heater
- synthetic (man-made) duvet inner
- none of these

Write a paragraph explaining one thing you could do to improve fire hazards in **your** bedroom, and why this action would be effective. If you think your bedroom is totally safe, write a paragraph explaining why it is safe.

In your explanations refer to the parts of the fire triangle.

Description	Partial explanation	Full explanation
Identifies a hazard	Identifies a hazard and explains why it is dangerous	Identifies a hazard and links explanation to at least one of the elements of the fire triangle

<i>Examples</i>	<i>Examples</i>	<i>Examples</i>
<ul style="list-style-type: none"> • I could get rid of the candles in my room. • I wouldn't do anything. 	<ul style="list-style-type: none"> • I could get rid of the candles in my room. They could cause a fire. • There are no fire hazards in my room so it is safe. 	<ul style="list-style-type: none"> • I use candles in my bedroom. Lit candles could start a fire if the flame gets too close to the curtains and sets them alight. If I don't light the candles, there is nothing hot enough to start the curtains burning. • My room is safe because there is nothing that can actually start a fire.

Use the rubric to decide how well you answered the question. Tick the box which best describes your answer. (Choose one.)

Here is your answer:

<input type="radio"/> I did not talk about fire hazards in my bedroom.	<input type="radio"/> I identified a hazard.	<input type="radio"/> I identified a hazard and explained why it was dangerous.	<input type="radio"/> I included at least one part of the fire triangle in my explanation.
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Description	Partial explanation	Full explanation
Identifies a hazard to remove	Identifies a hazard and explains why it is dangerous	Identifies a hazard and links explanation to at least one of the elements of the fire triangle
<p>Examples</p> <ul style="list-style-type: none"> • I could get rid of the candles in my room. • I wouldn't do anything. 	<p>Examples</p> <ul style="list-style-type: none"> • I could get rid of the candles in my room. They could cause a fire. • There are no fire hazards in my room so it is safe. 	<p>Examples</p> <ul style="list-style-type: none"> • I use candles in my bedroom. Lit candles could start a fire if the flame gets too close to the curtains and sets them alight. If I don't light the candles, there is nothing hot enough to start the curtains burning. • My room is safe because there is nothing that can actually start a fire.

Use the rubric above to improve your answer.