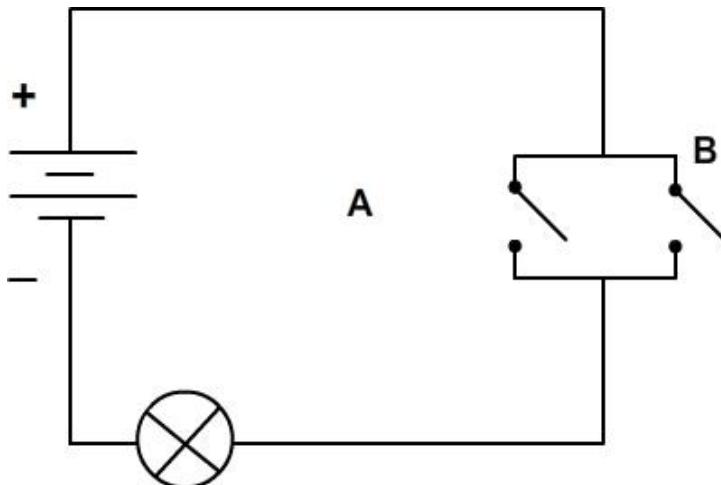


## Grade 8 Technology Worksheet

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### Switches in parallel

1. Build the circuit below, using two switches connected in parallel to control one bulb:



1.1 Complete the table below: [8 marks]

Instructions	Bulb lights up	Bulb remains off
Switch A and B off		
Switch A on and B off		
Switch B on and A off		
Switch A and B on		

1.2 Briefly explain what you have observed. [3 marks]  
 1.3 List four places where this type of switching is used. [4 marks]

# Grade 8 Technology Worksheet

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## Group Assessment

Level	Description
<b>Level 4</b>	Thorough understanding <ul style="list-style-type: none"> <li>• Consistently and actively worked towards task completion.</li> <li>• Collected materials and assembled quickly and effectively.</li> <li>• Collected required information for comparison quickly and effectively.</li> </ul>
<b>Level 3</b>	Good understanding <ul style="list-style-type: none"> <li>• Worked towards task completion with little prompting.</li> <li>• Collected materials.</li> <li>• Organised to collect required information.</li> </ul>
<b>Level 2</b>	Satisfactory understanding <ul style="list-style-type: none"> <li>• Worked towards task completion at own pace.</li> <li>• Contributed some materials.</li> <li>• Contributed information to comparison.</li> </ul>
<b>Level 1</b>	Needs improvement <ul style="list-style-type: none"> <li>• Very little involvement in completing task.</li> <li>• Limited contribution of materials.</li> <li>• Limited contribution to comparison.</li> </ul>

[15 marks]

# Grade 8 Technology Worksheet

## Suggested Solutions

Question number	Possible marks	Answers													
1	8 marks	1.1													
		<table border="1"> <thead> <tr> <th>Instructions</th> <th>Bulb lights up</th> <th>Bulb remains off</th> </tr> </thead> <tbody> <tr> <td>Switch A and B off</td> <td></td> <td>✓</td> </tr> <tr> <td>Switch A on and B off</td> <td>✓</td> <td></td> </tr> <tr> <td>Switch B on and A off</td> <td>✓</td> <td></td> </tr> <tr> <td>Switch A and B on</td> <td>✓</td> <td></td> </tr> </tbody> </table>	Instructions	Bulb lights up	Bulb remains off	Switch A and B off		✓	Switch A on and B off	✓		Switch B on and A off	✓		Switch A and B on
Instructions	Bulb lights up	Bulb remains off													
Switch A and B off		✓													
Switch A on and B off	✓														
Switch B on and A off	✓														
Switch A and B on	✓														
1.2 Switch A and B complete the circuit, thus causing the bulb to light up.															
1.3 interior lights of car, top of stairway and bottom of stairway, inside a garage and outside, opposite sides of a room															

[15 marks]

## Group Assessment

Level	Description
<b>Level 4</b>	Thorough understanding <ul style="list-style-type: none"> <li>• Consistently and actively worked towards task completion.</li> <li>• Collected materials and assembled quickly and effectively.</li> <li>• Collected required information for comparison quickly and effectively.</li> </ul>
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<b>Level 1</b>	Needs improvement <ul style="list-style-type: none"> <li>• Very little involvement in completing task.</li> <li>• Limited contribution of materials.</li> <li>• Limited contribution to comparison.</li> </ul>